

FIG. 1A

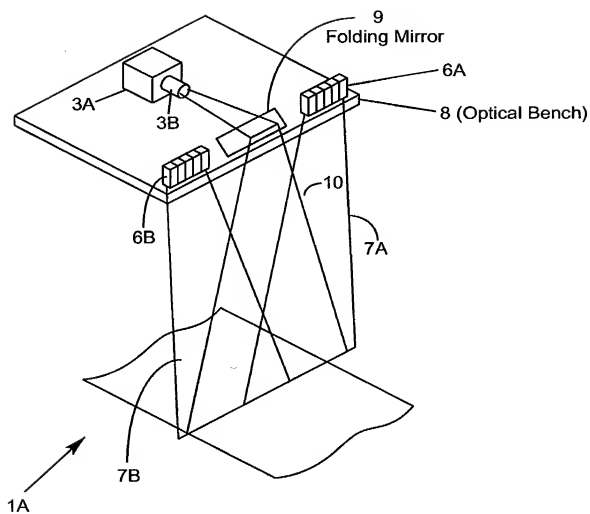
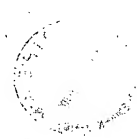


FIG. 1B1



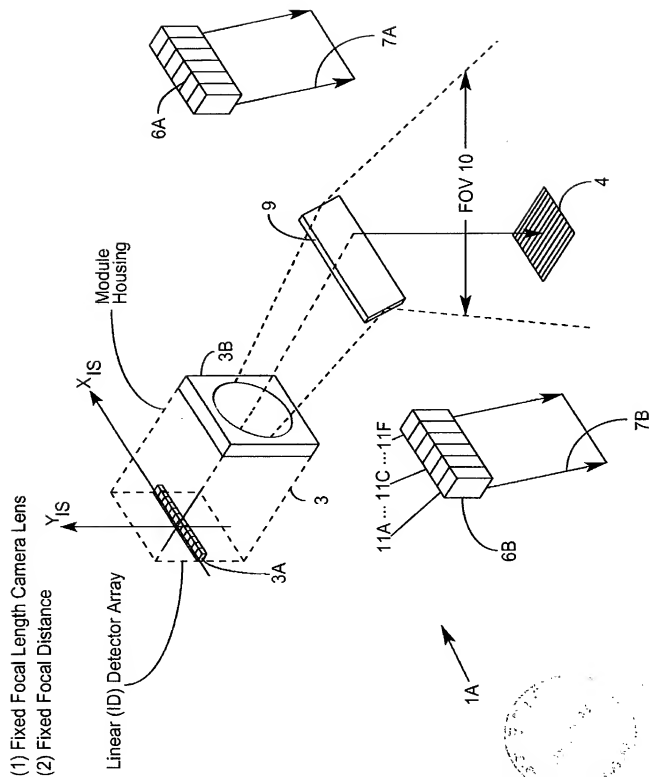


FIG. 1B2



FIG. 1F

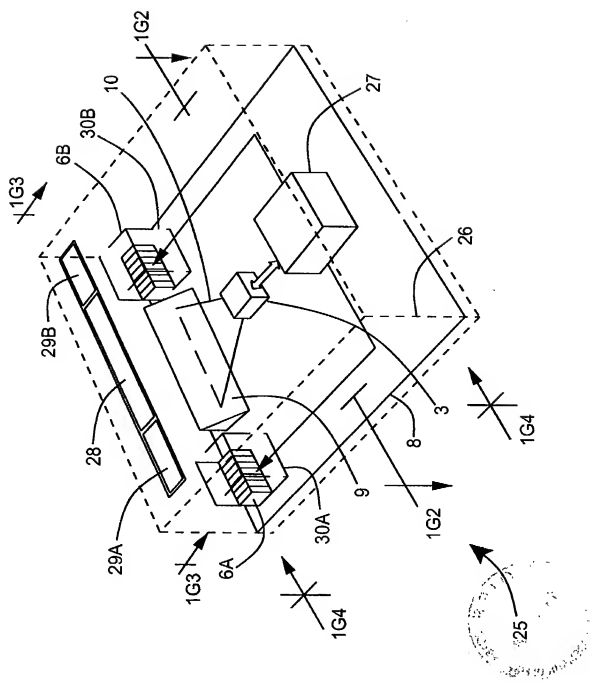


FIG. 1G1

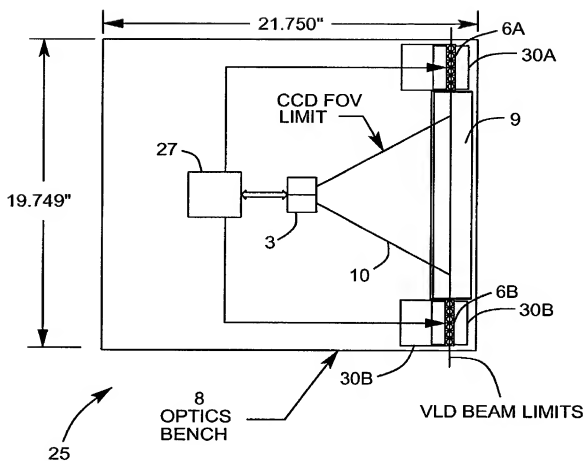


FIG. 1G2



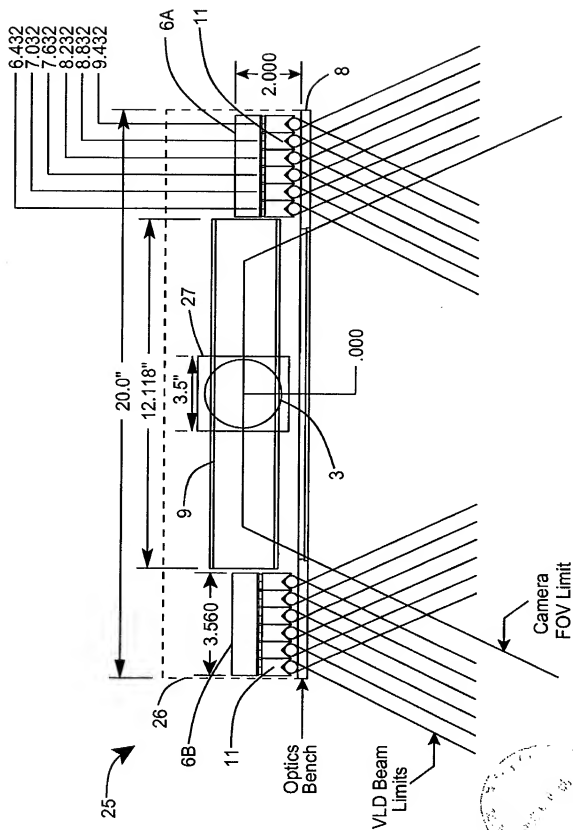


FIG. 1G3

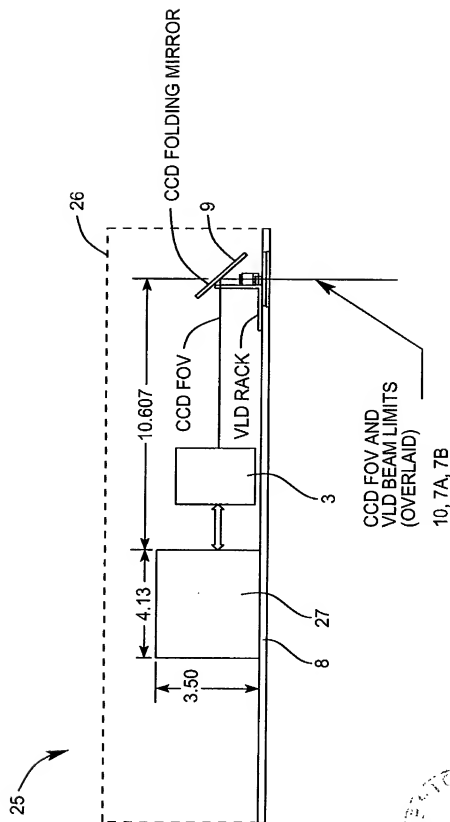


FIG. 1G4

FIG. 1G5

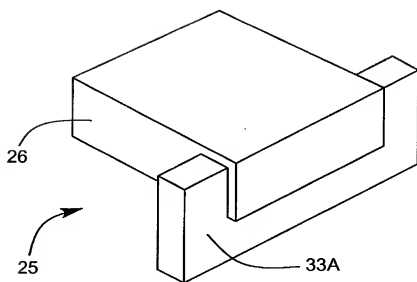


FIG. 1G6

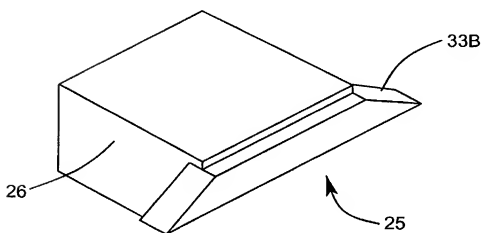
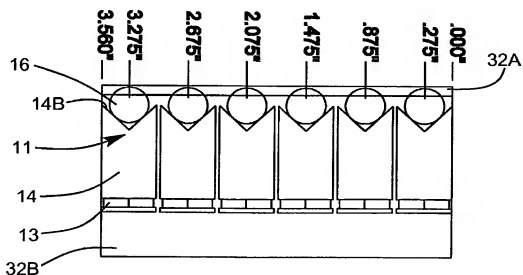
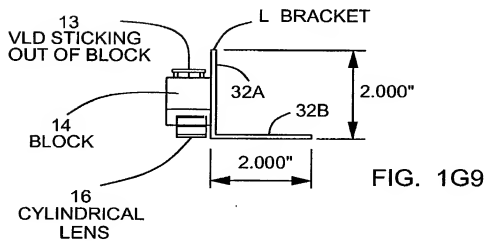
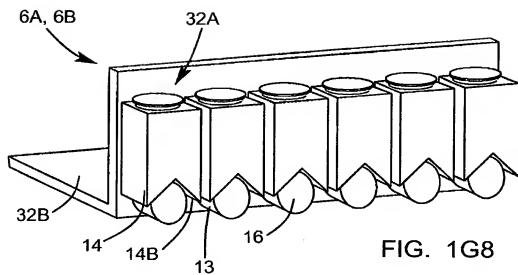


FIG. 1G7





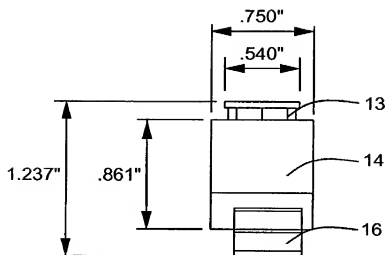


FIG. 1G11

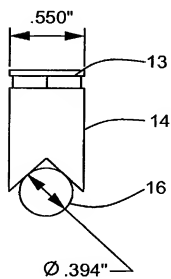


FIG. 1G12



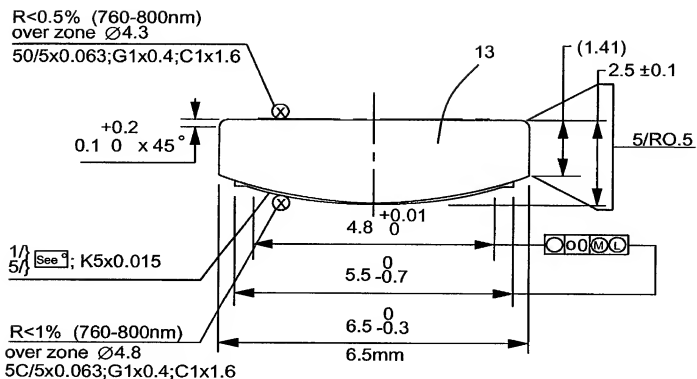


FIG. 1H1

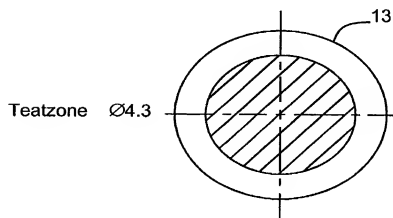


FIG. 1H2



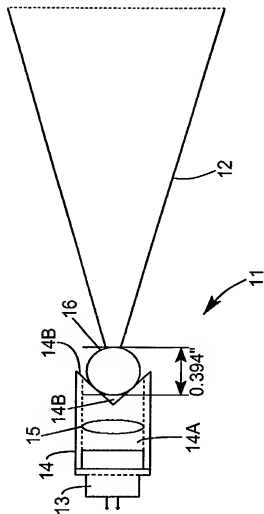


FIG. 111

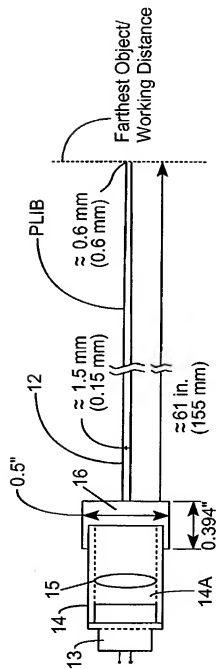


FIG. 112

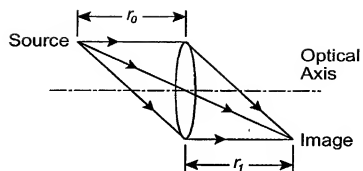


FIG. 1J1

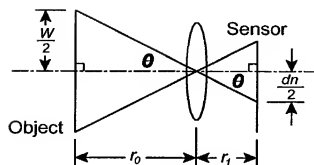


FIG. 1J2



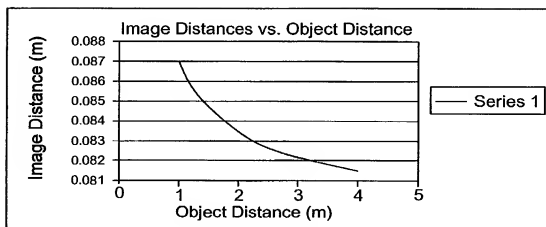


FIG. 1J3

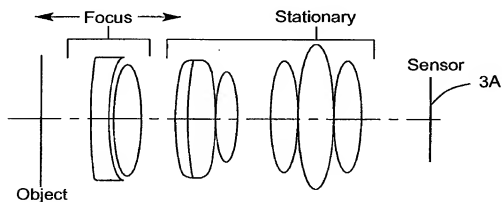


FIG. 1J4

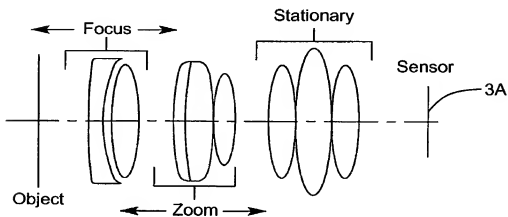


FIG. 1J5



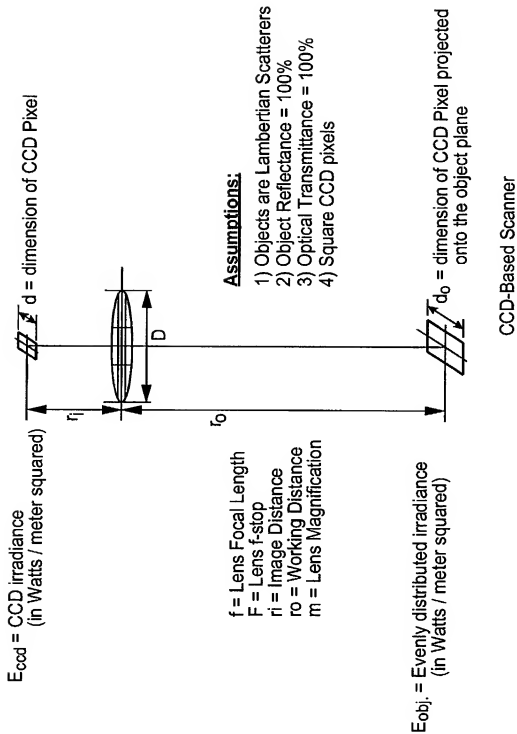


FIG. 1J6

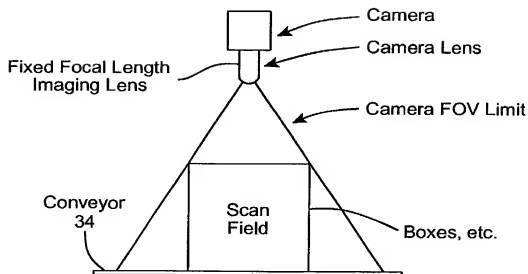
Fixed Focal LengthLens Cases

FIG. 1K1

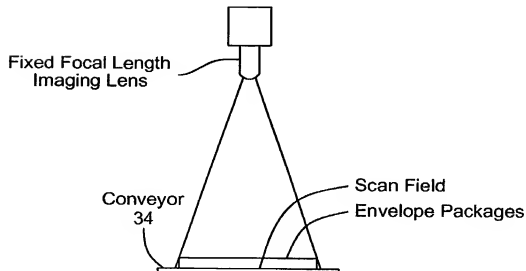


FIG. 1K2

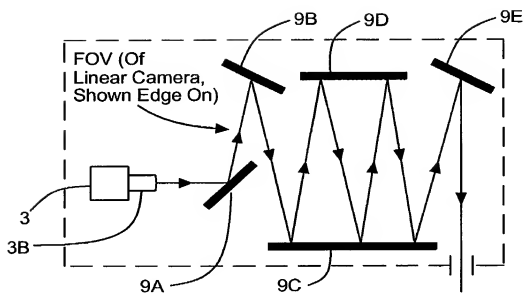


FIG. 1L1

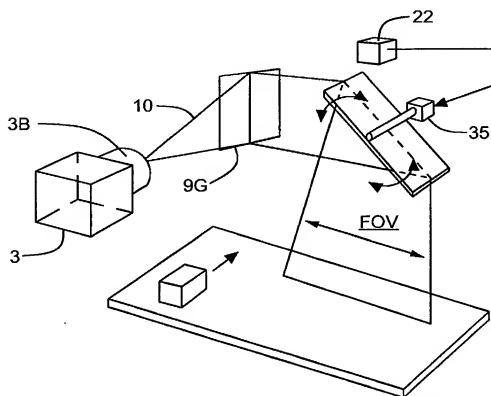


FIG. 1L2

Pixel Power Density vs. Object Distance (General Example)

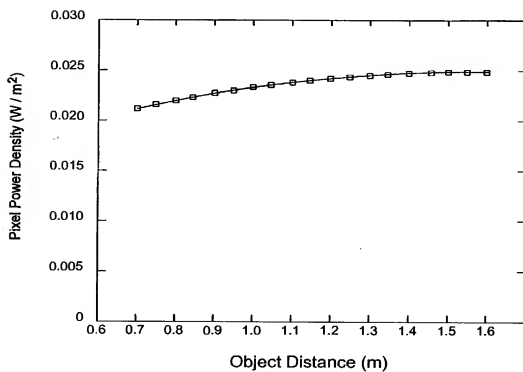


FIG. 1M1



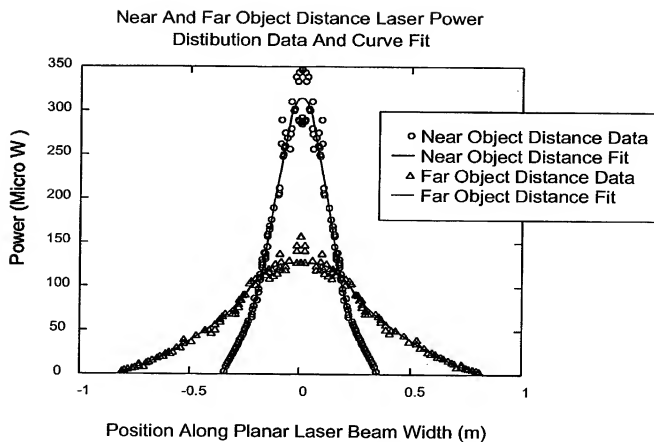


FIG. 1M2



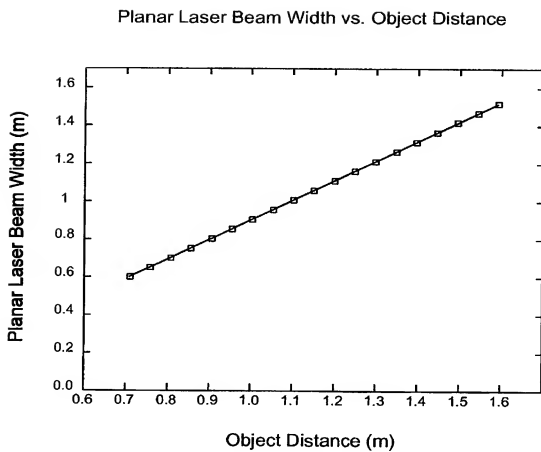


FIG. 1M3



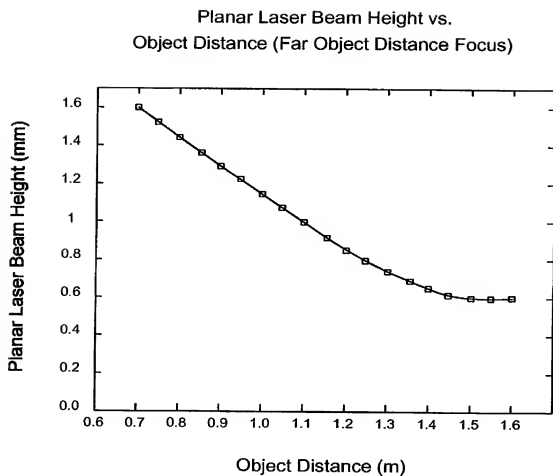


FIG. 1M4



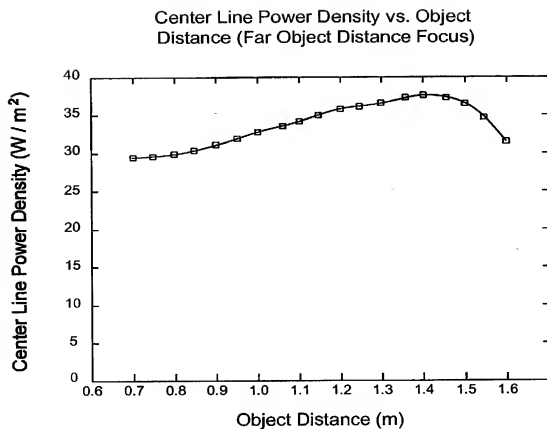


FIG. 1N



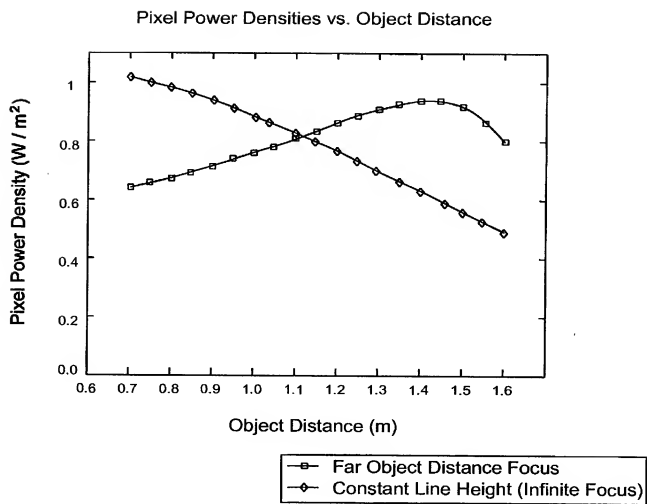


FIG. 10



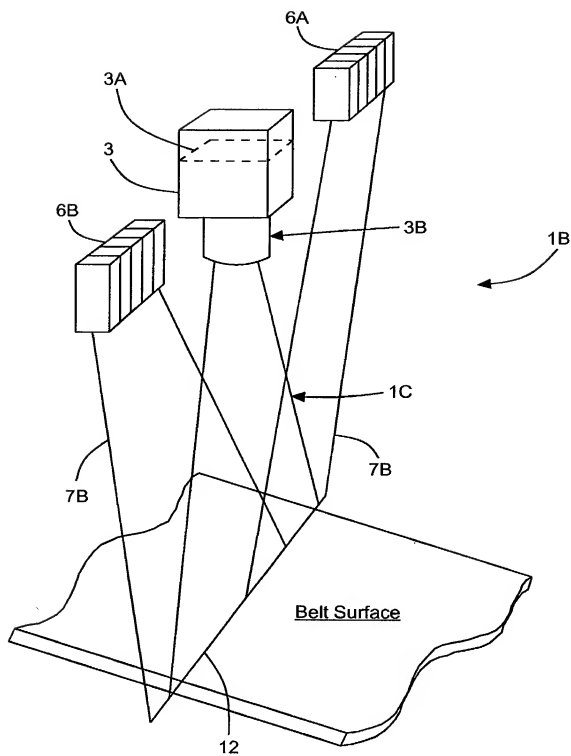


FIG. 1Q1



FIXED FOCAL LENGTH / FIXED FOCAL DISTANCE

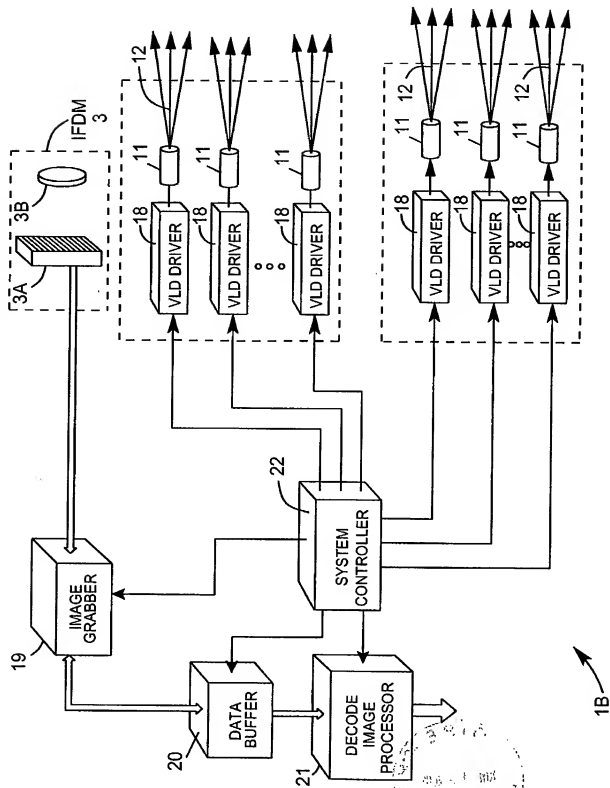


FIG. 1Q2

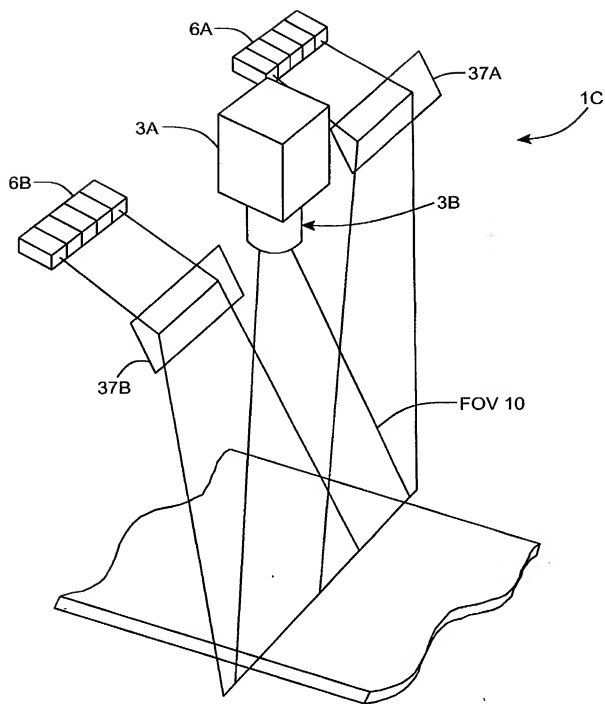


FIG. 1R1



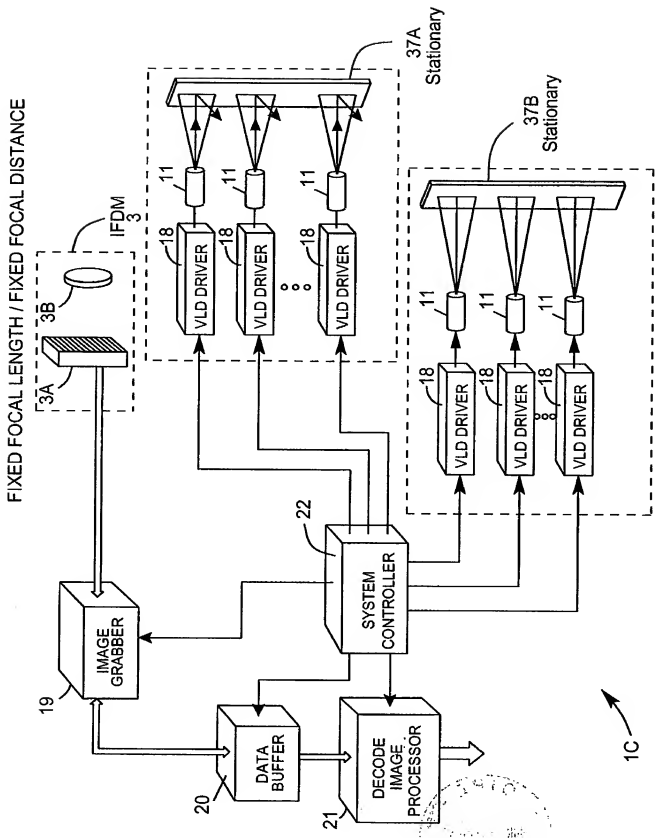


FIG. 1R2

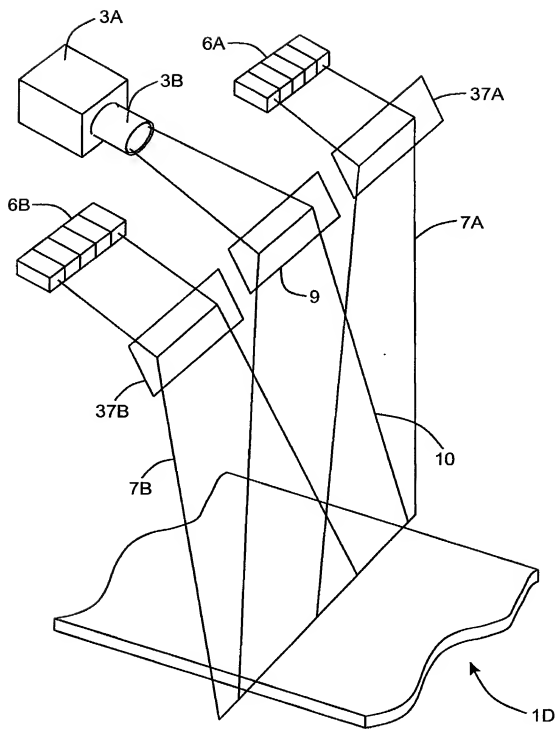


FIG. 1S1

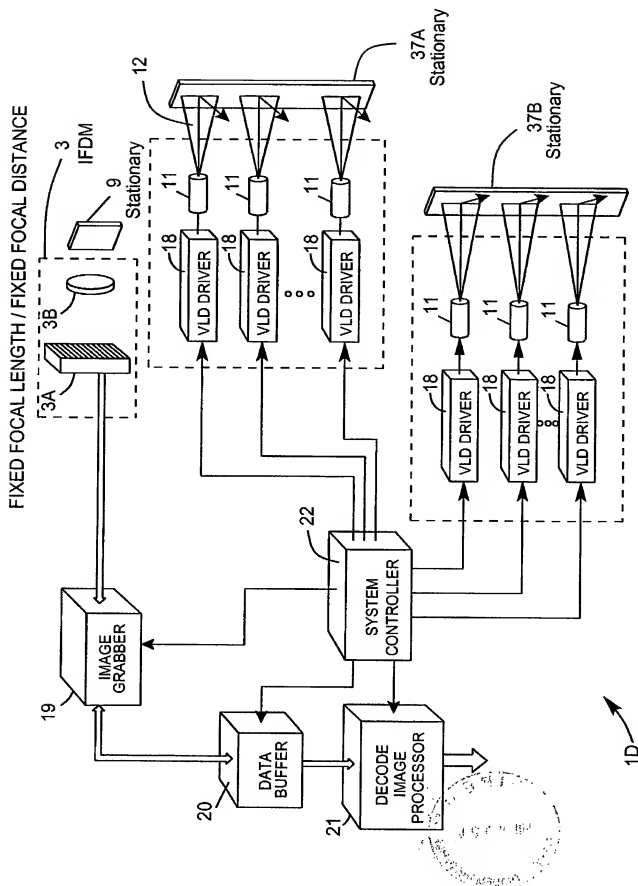


FIG. 1S2

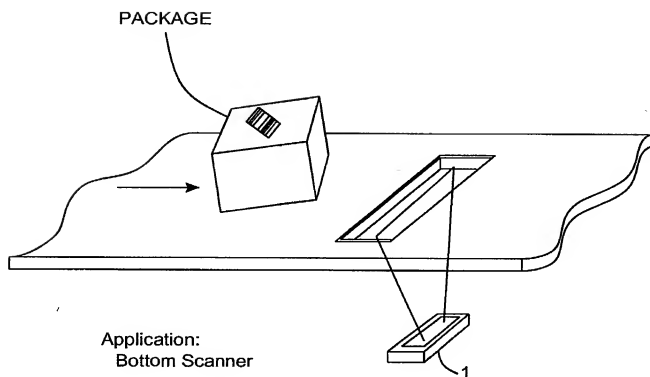


FIG. 1T



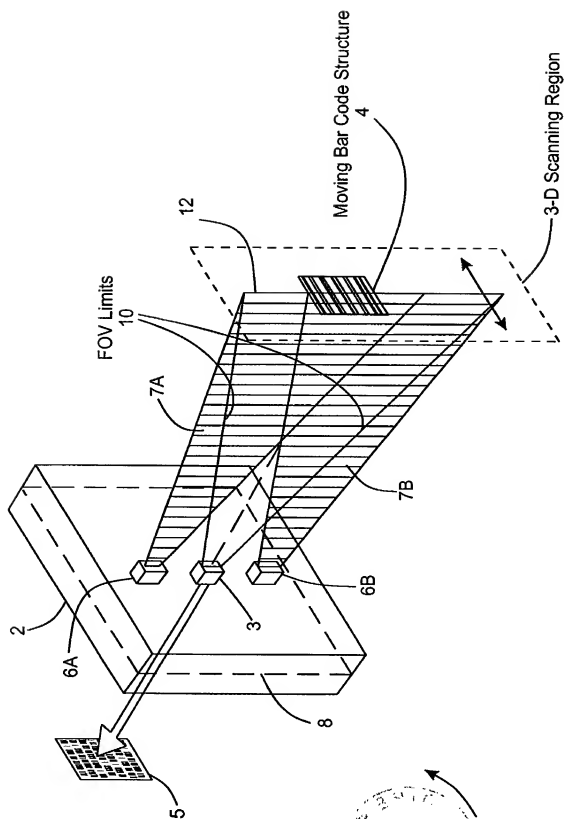


FIG. 1V1

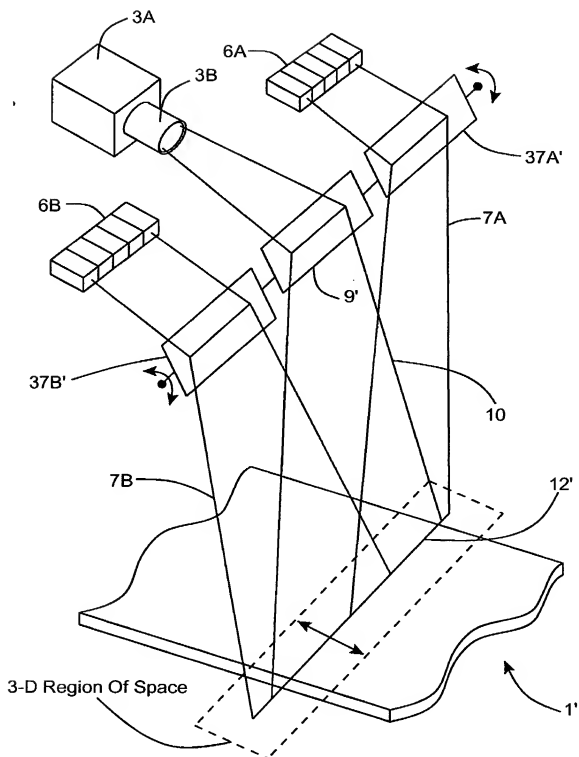


FIG. 1V2

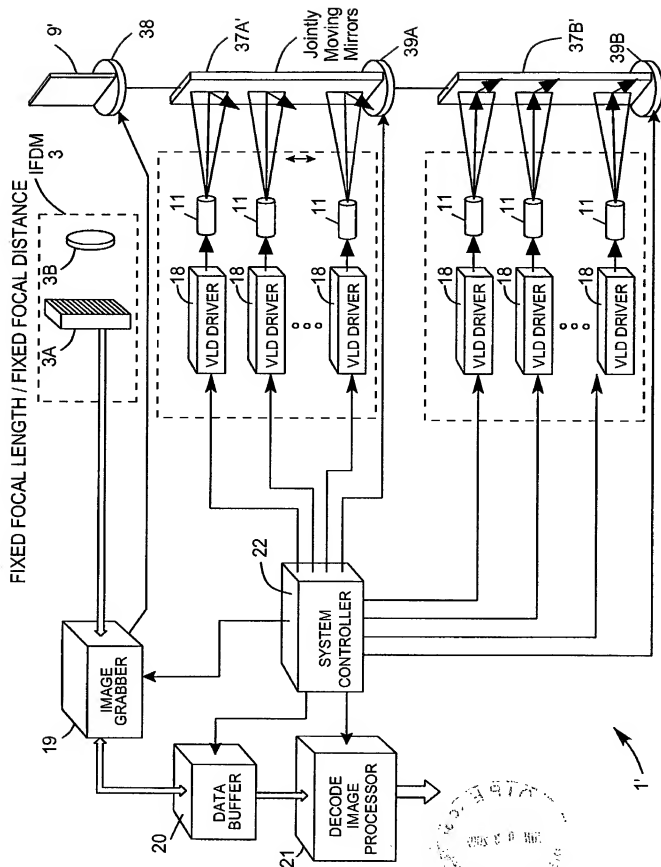
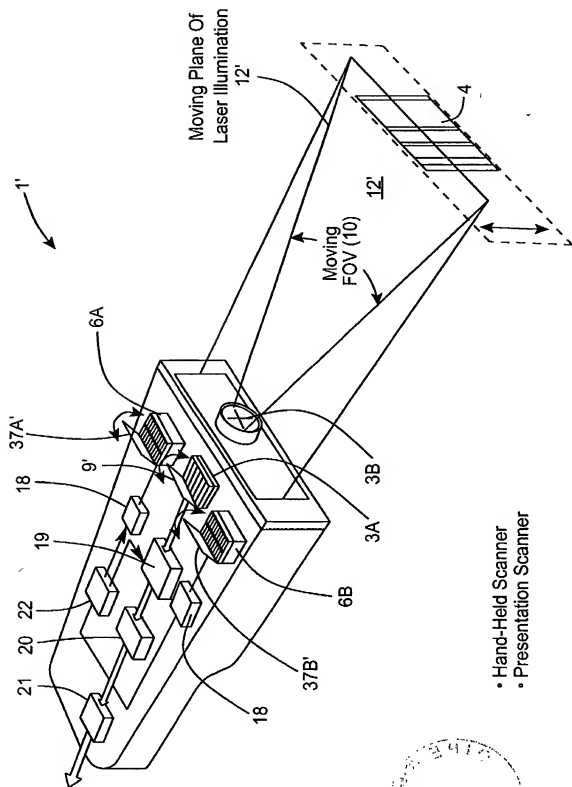


FIG. 1V3



- Hand-Held Scanner
- Presentation Scanner

FIG. 1V4

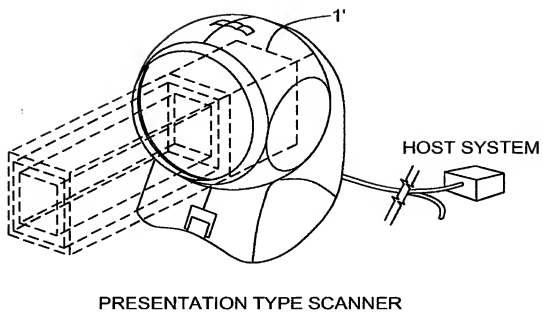


FIG. 1V5

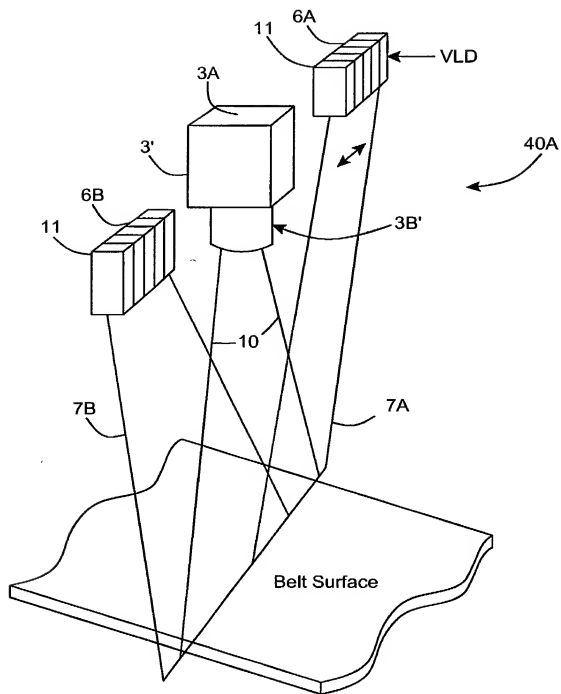
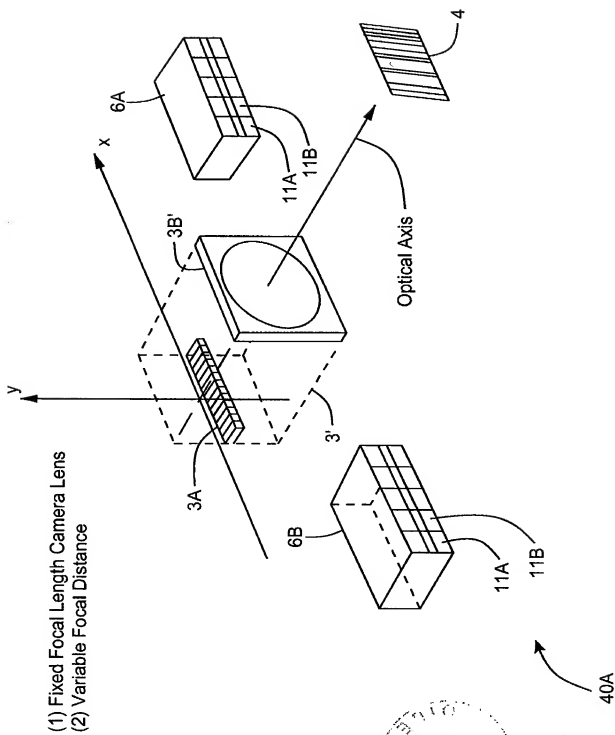


FIG. 2B1





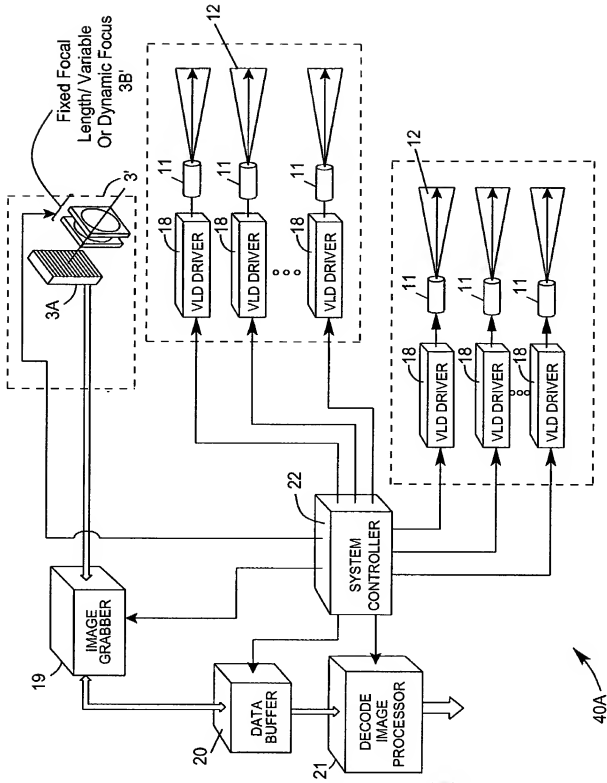


FIG. 2C1

- Fixed Focal Length Imaging Lens
- Variable Or Dynamic Focus Control

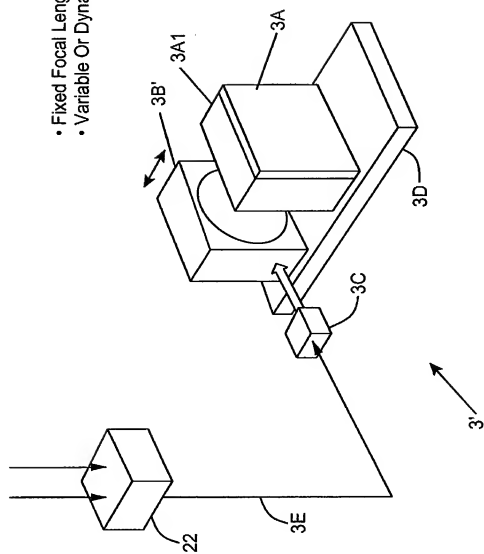


FIG. 2C2

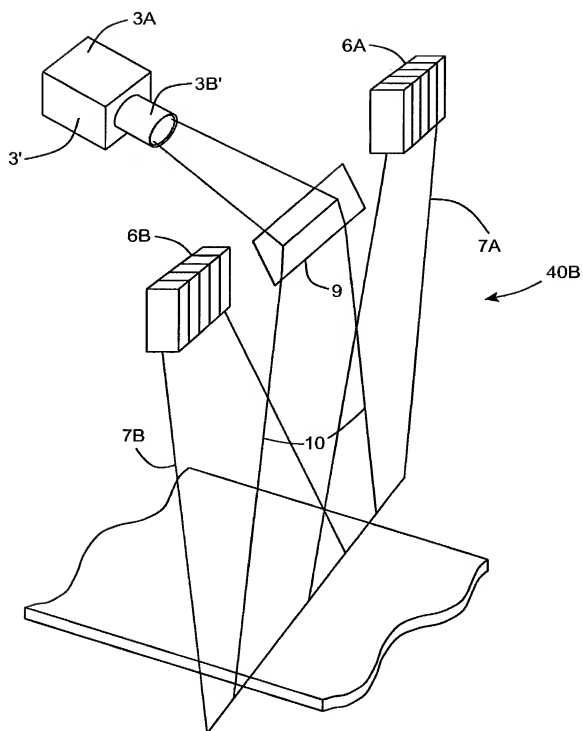


FIG. 2D1



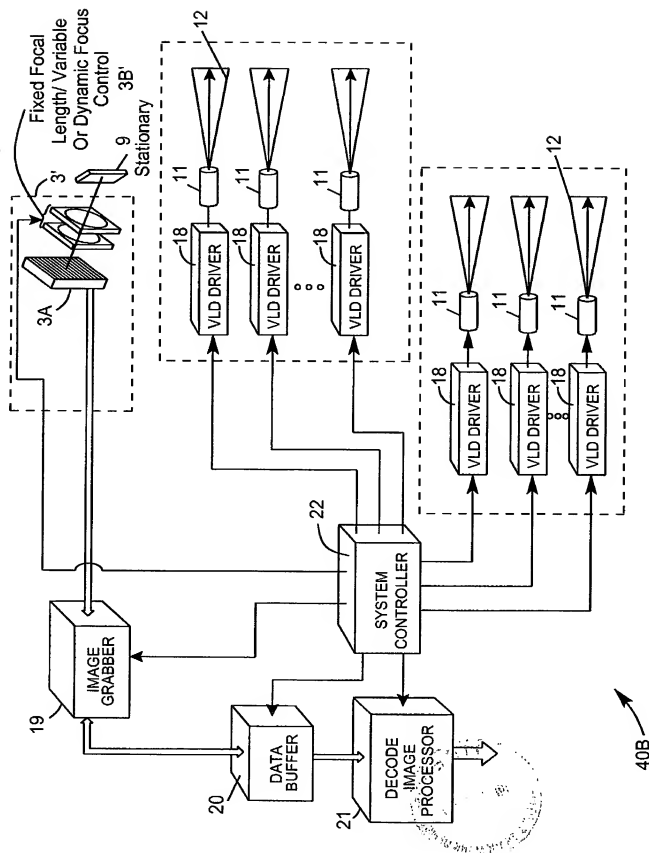


FIG. 2D2

- Fixed Focal Length Imaging Lens
- Variable Or Dynamic Focus Control

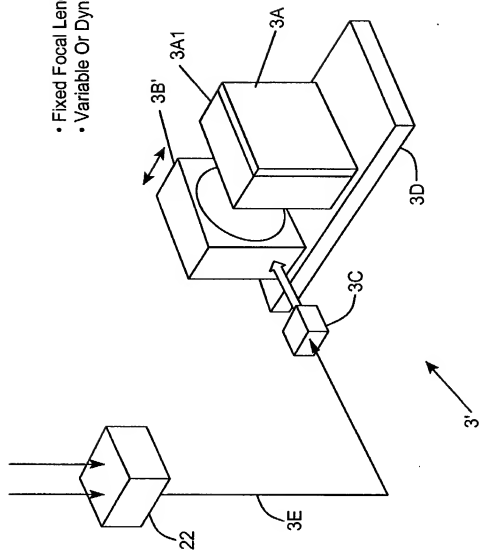


FIG. 2D3

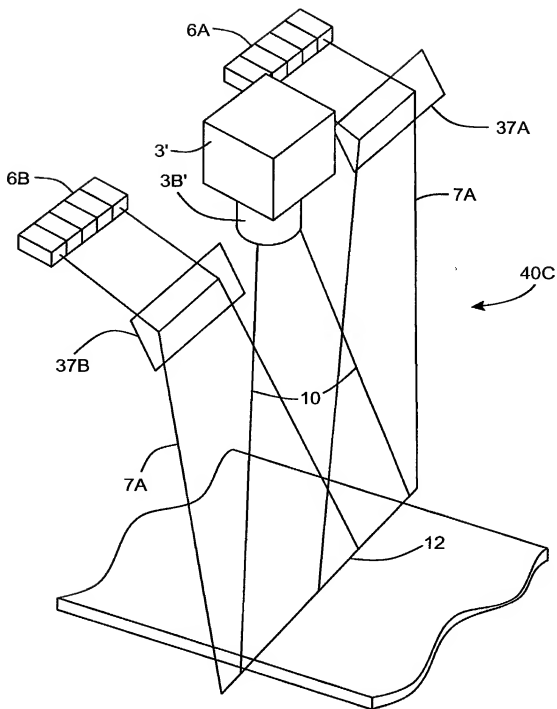


FIG. 2E1

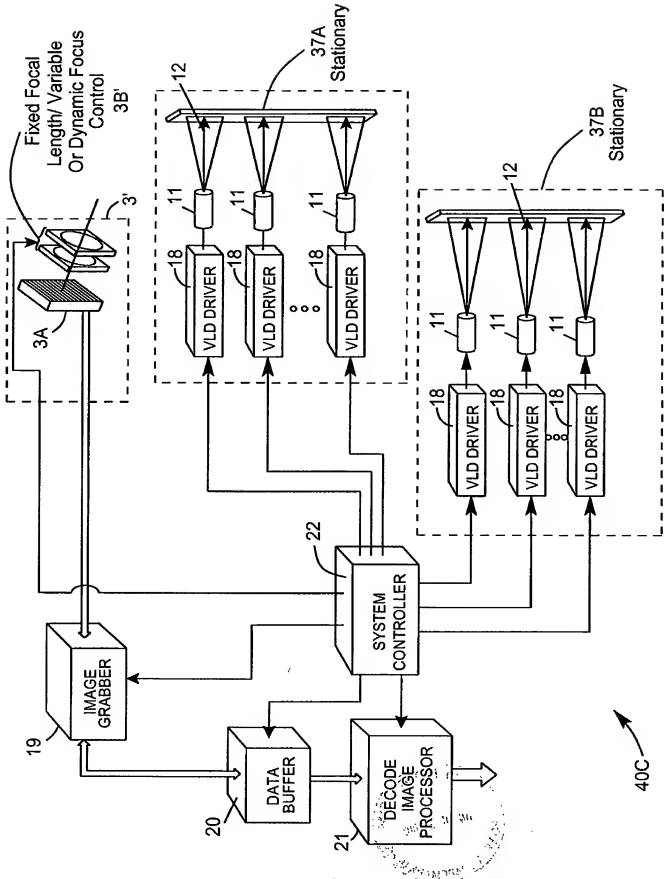


FIG. 2E2

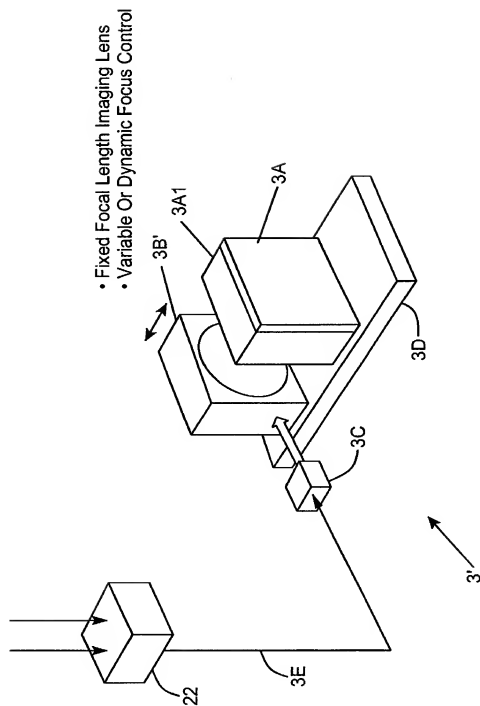


FIG. 2E3

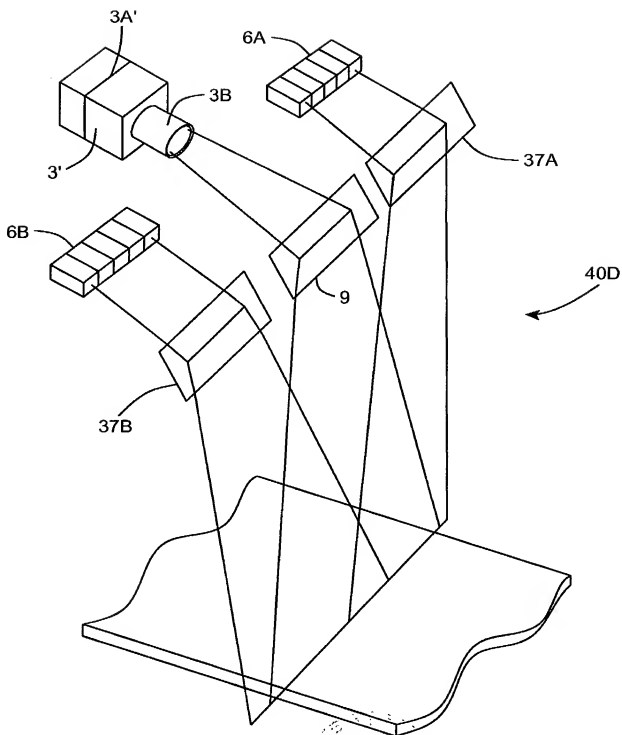
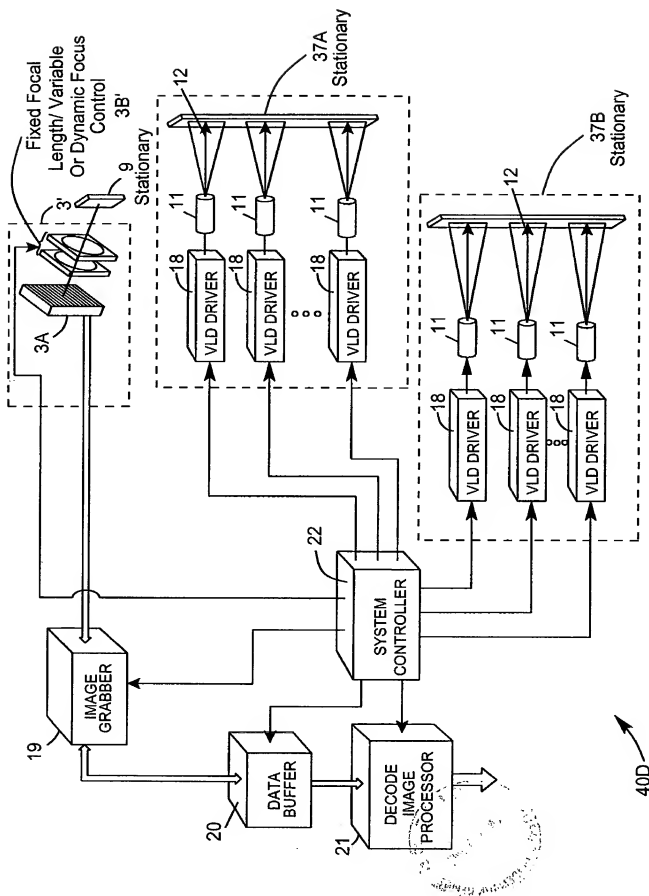
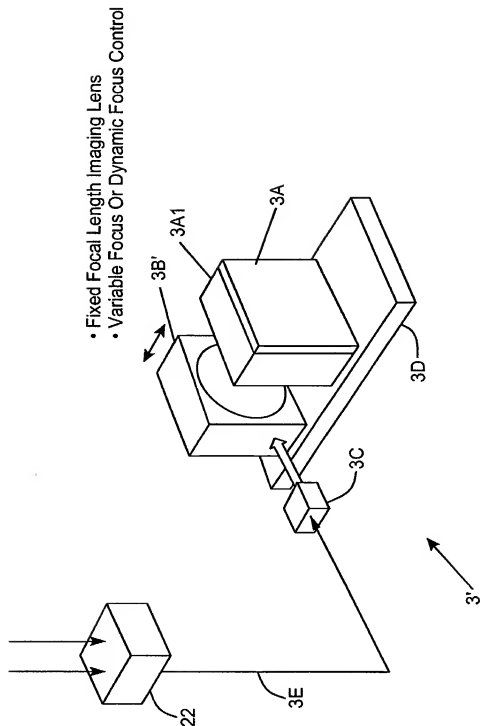


FIG. 2F1





- Fixed Focal Length Imaging Lens
- Variable Focus Or Dynamic Focus Control

FIG. 2F3

Top Conveyor Scanner:

- Fixed Focal Length Imaging Lens
- Variable Focal Distance Control

Side Conveyor Scanner:

- Fixed Focal Length Imaging Lens
- Dynamic Focal Distance Control

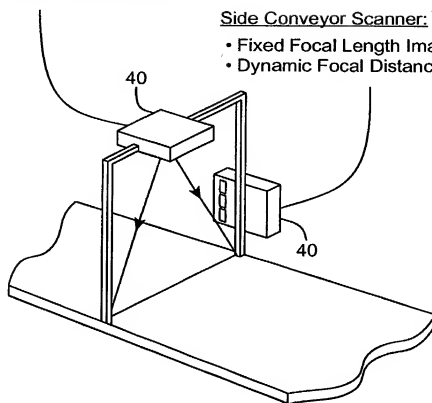


FIG. 2G



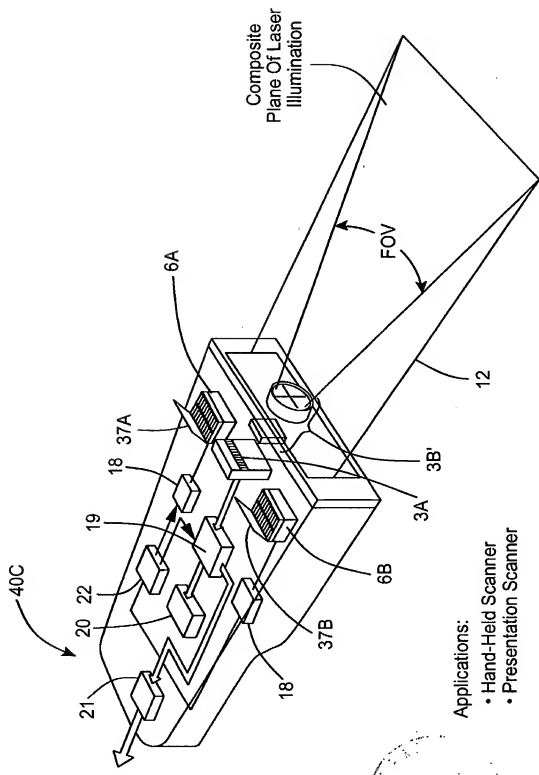


FIG. 2H

- Applications:
- Hand-Held Scanner
 - Presentation Scanner

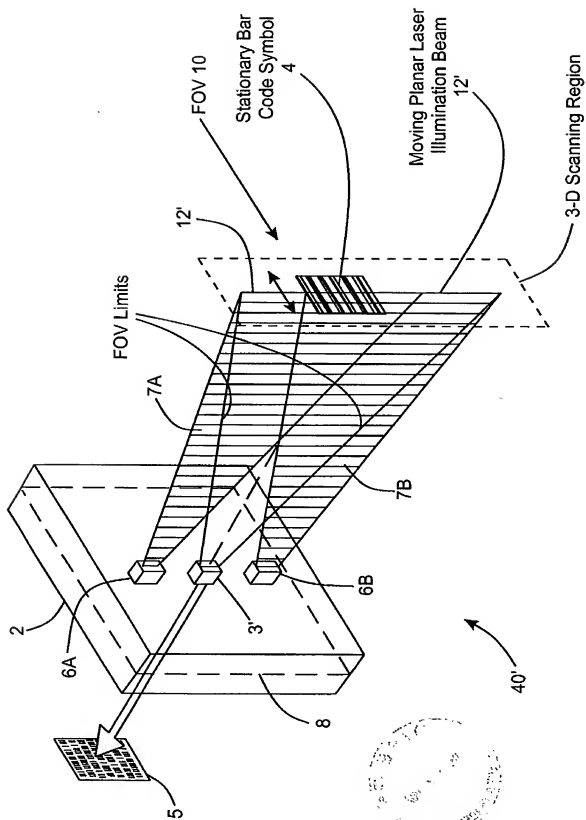


FIG. 211

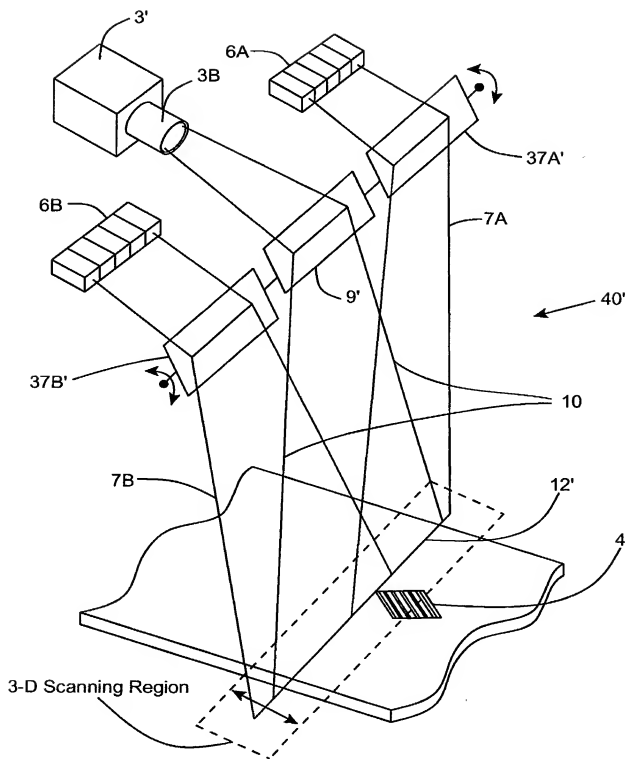


FIG. 212

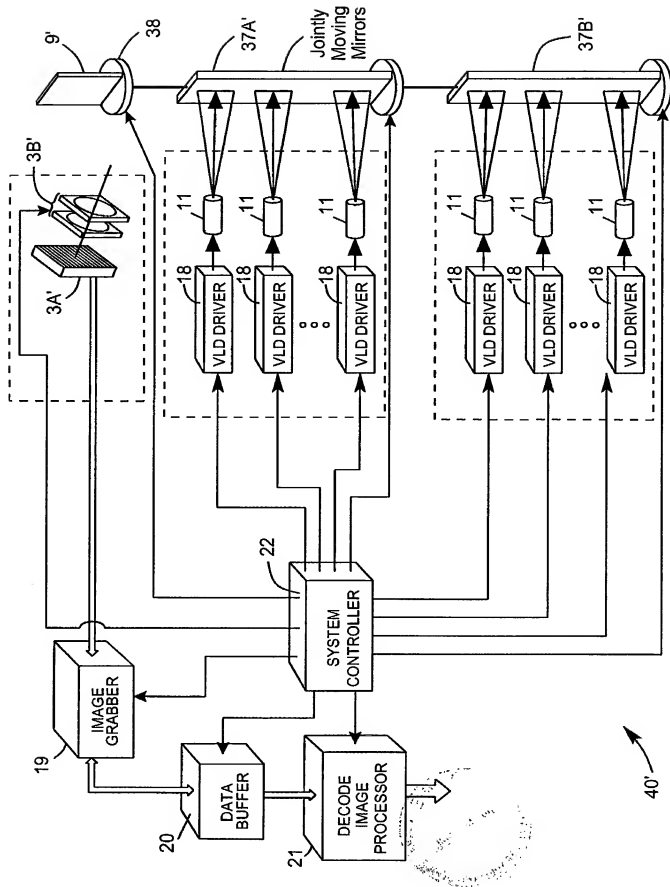


FIG. 213

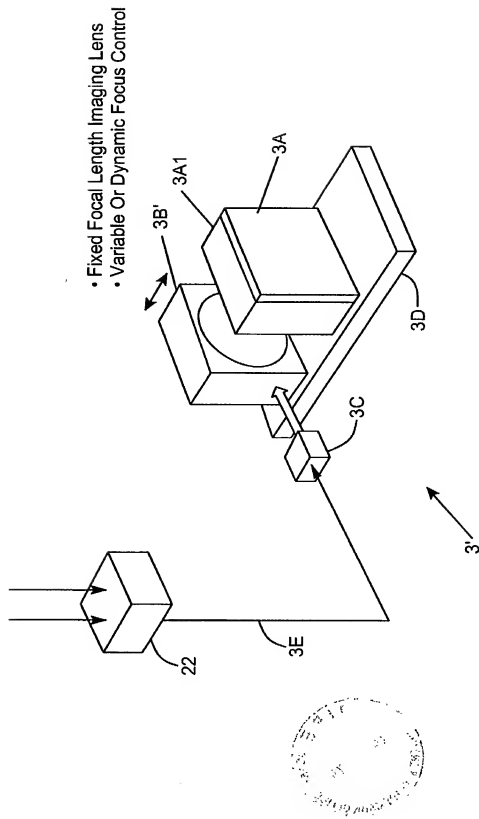


FIG. 214

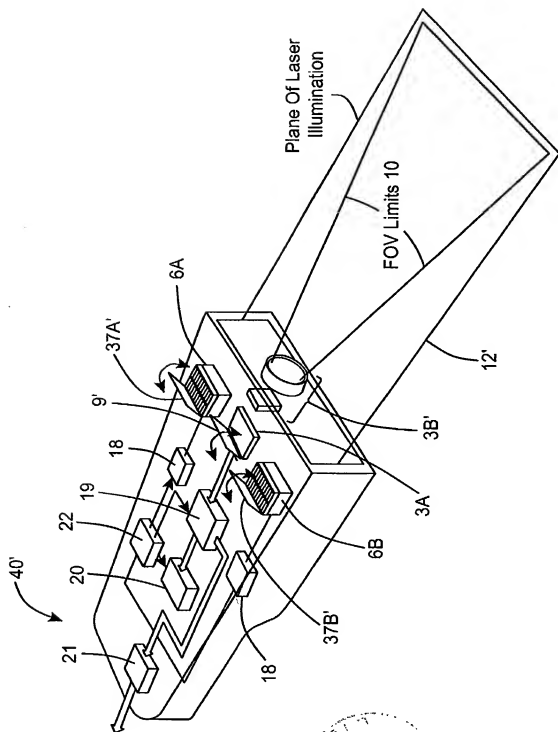


FIG. 215

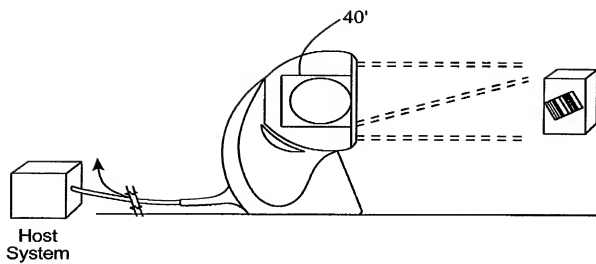


FIG. 216

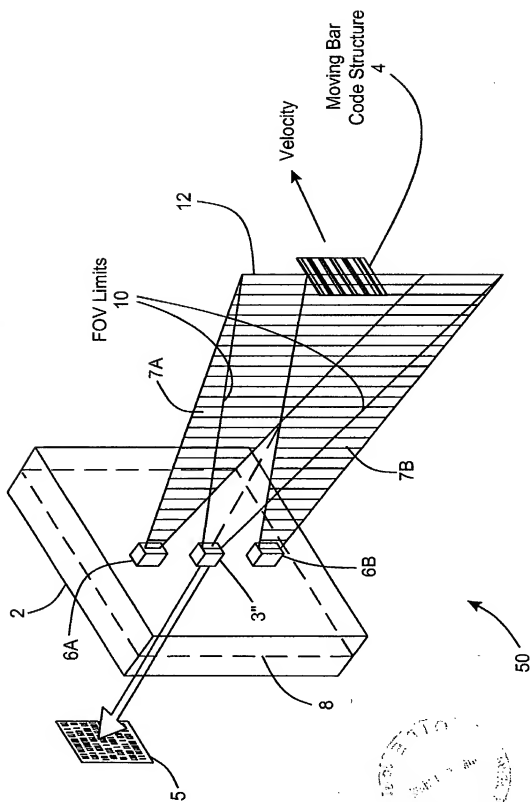


FIG. 3A

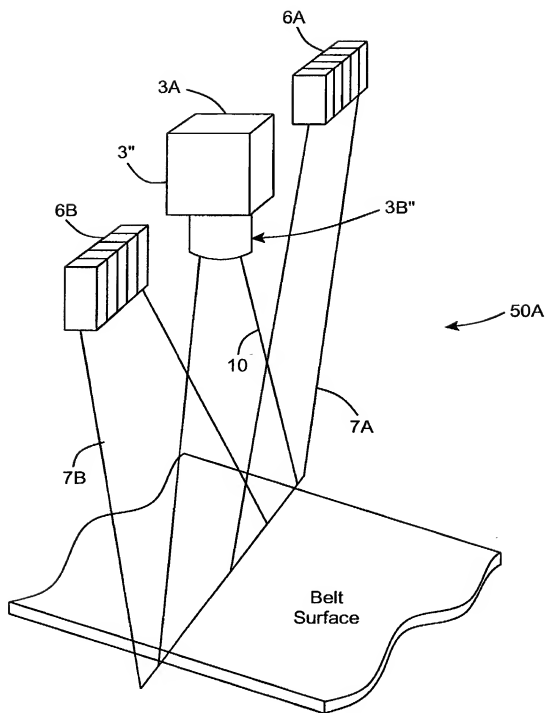


FIG. 3B1

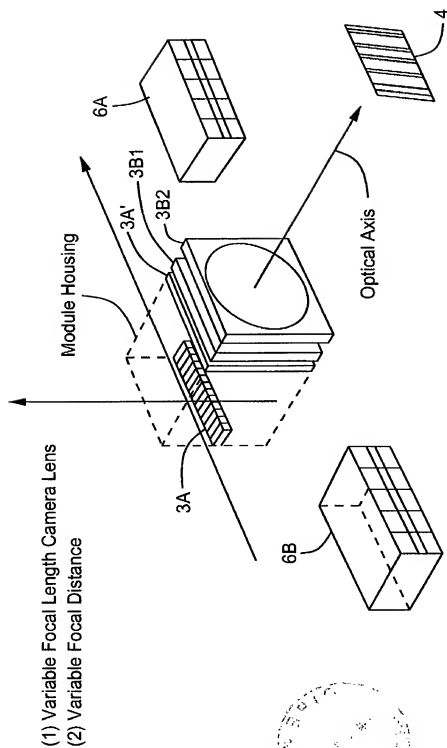


FIG. 3B2

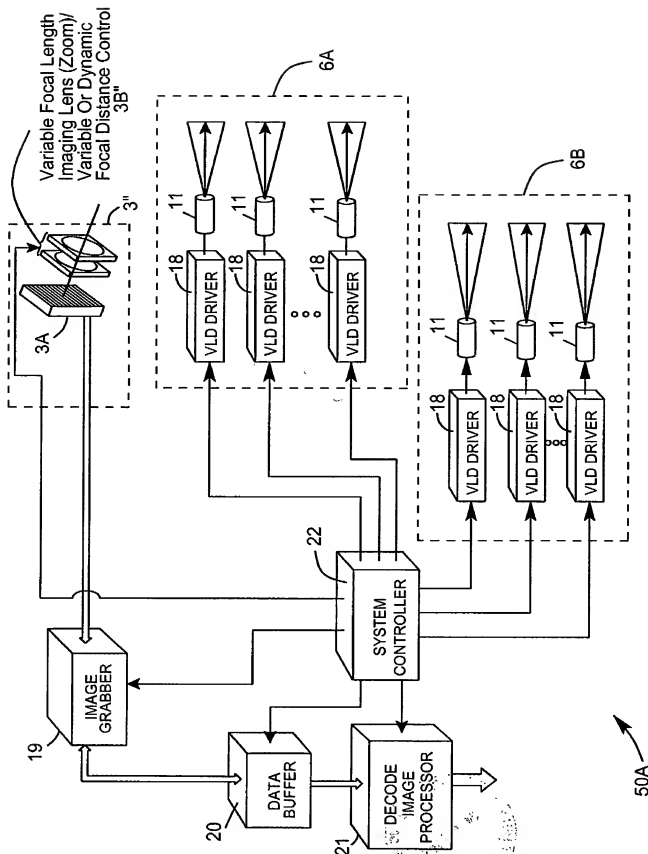


FIG. 3C1

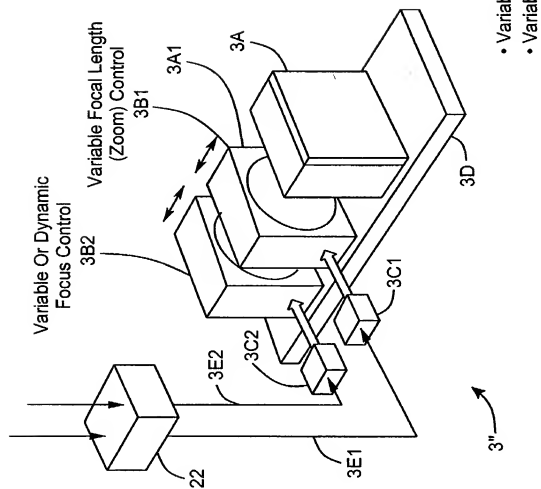


FIG. 3C2

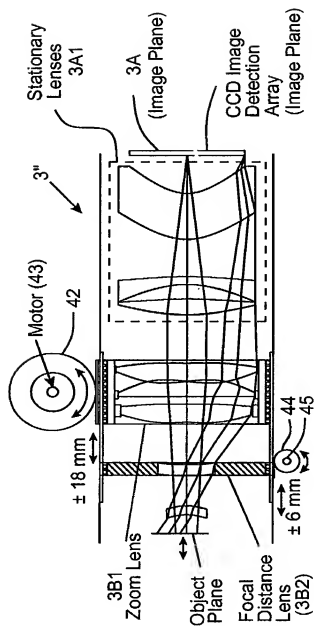


FIG. 3D



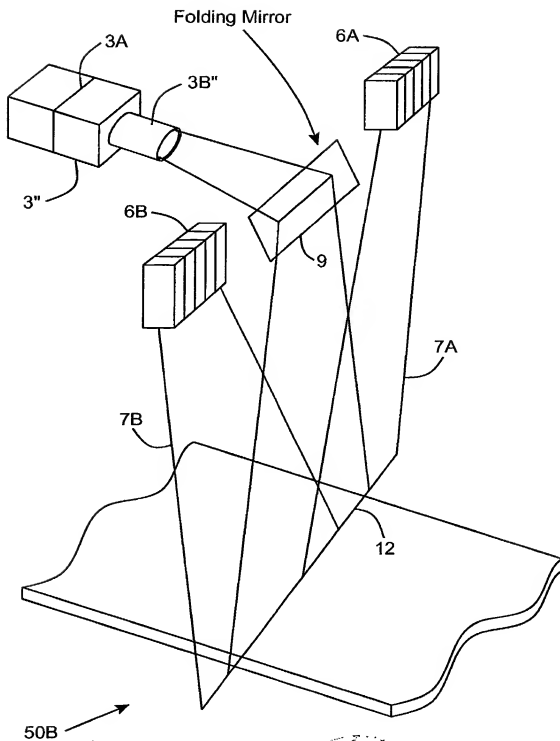


FIG. 3E1

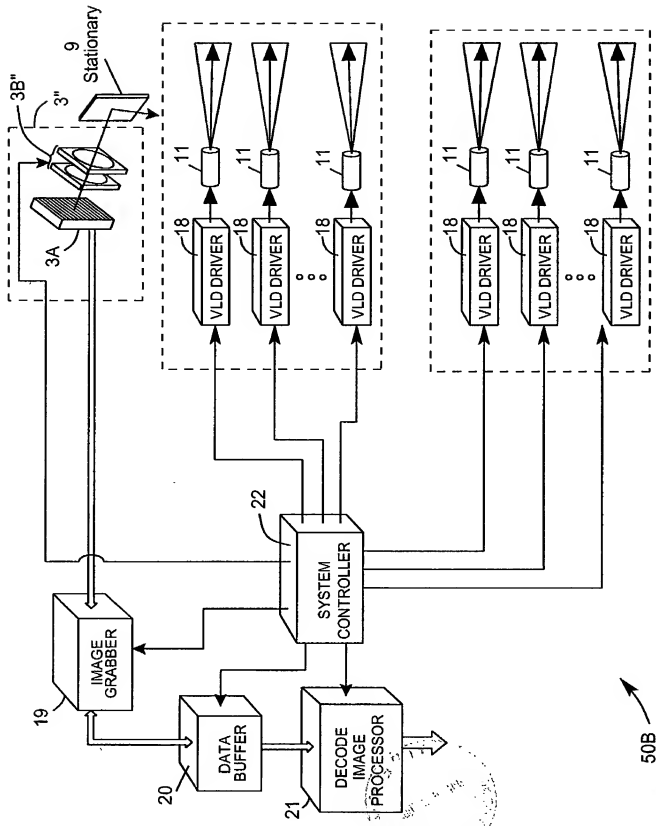


FIG. 3E2

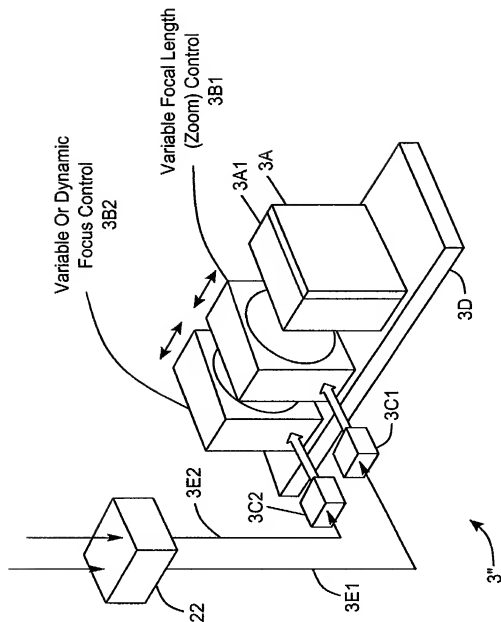


FIG. 3E3

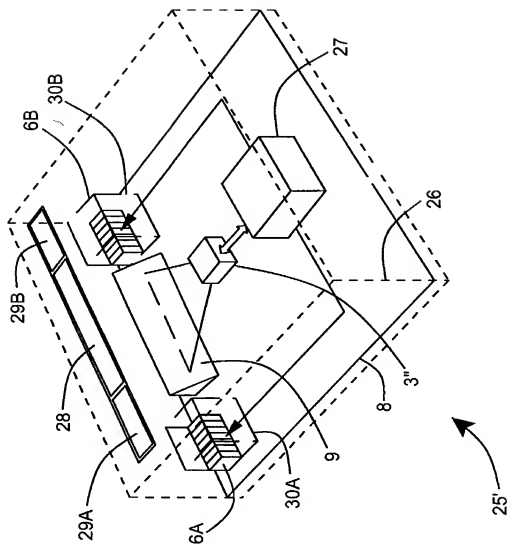


FIG. 3E4

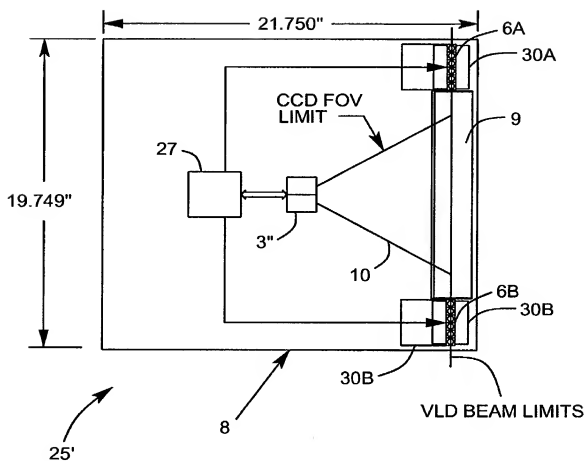


FIG. 3E5

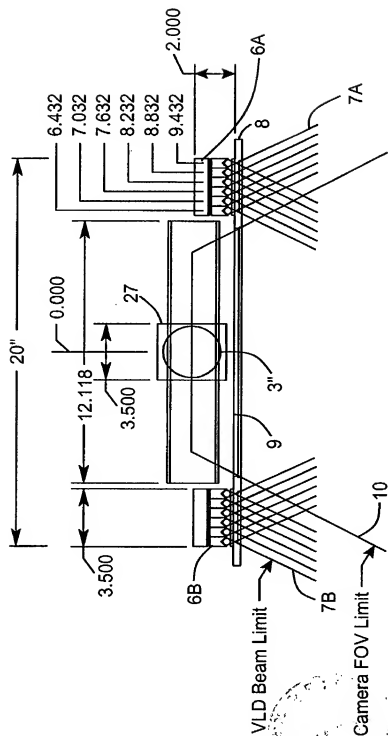


FIG. 3E6

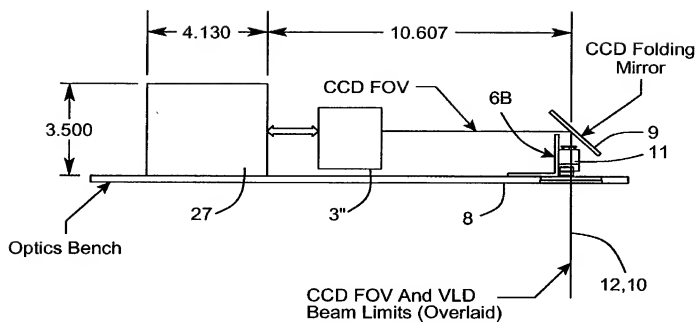


FIG. 3E7

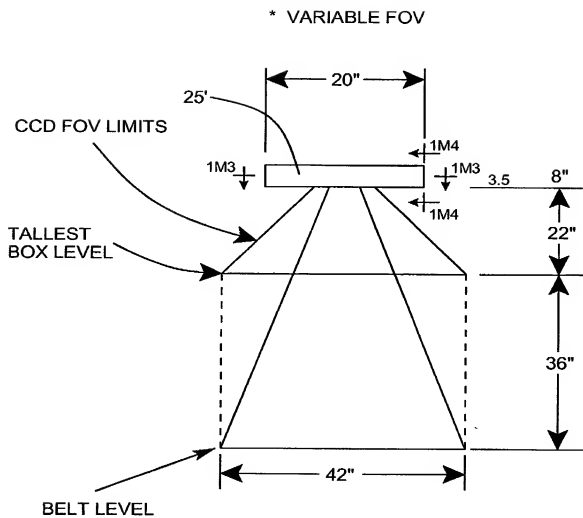


FIG. 3E8



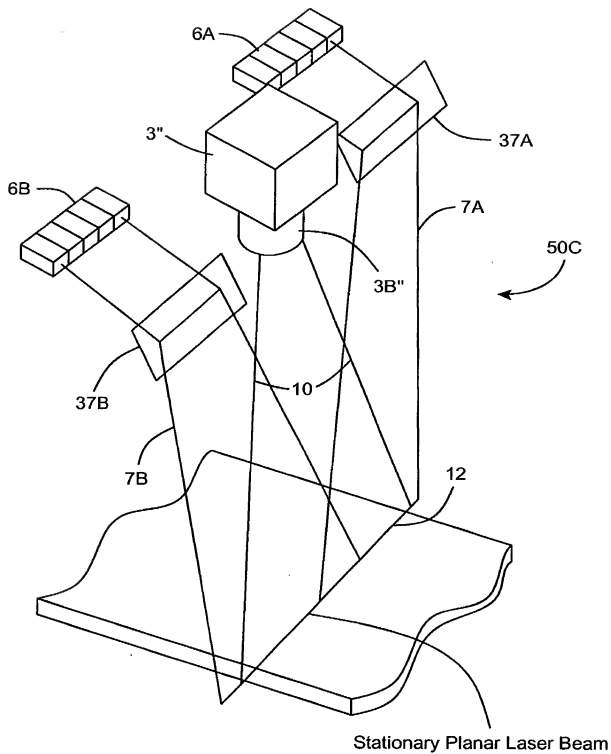


FIG. 3F1

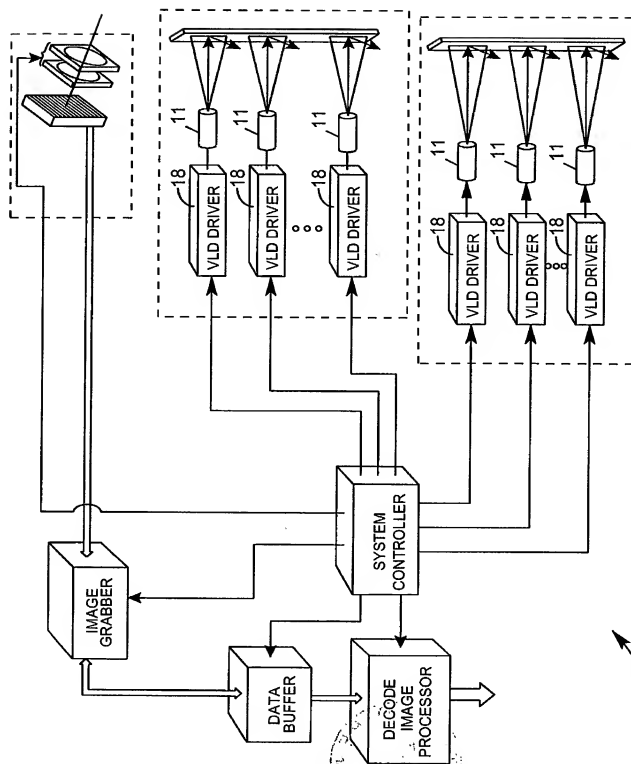


FIG. 3F2

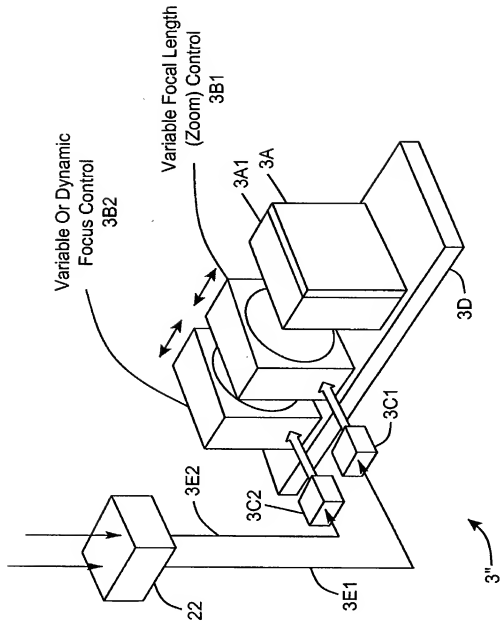


FIG. 3F3

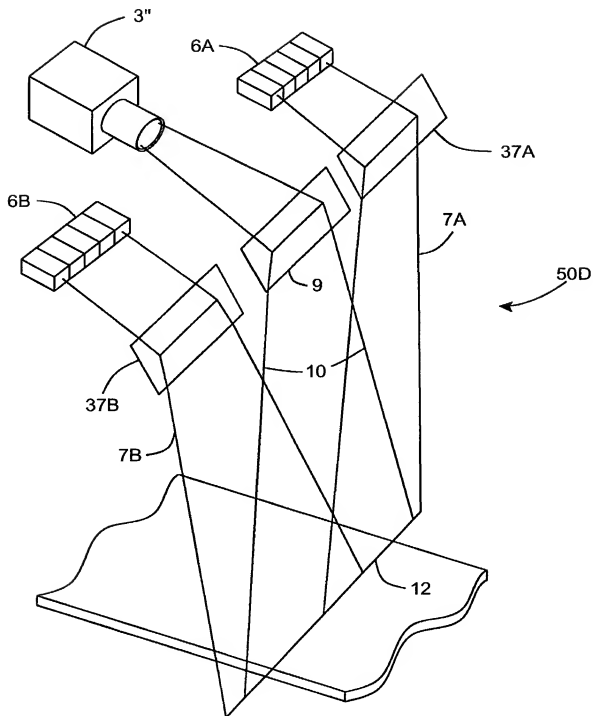


FIG. 3G1

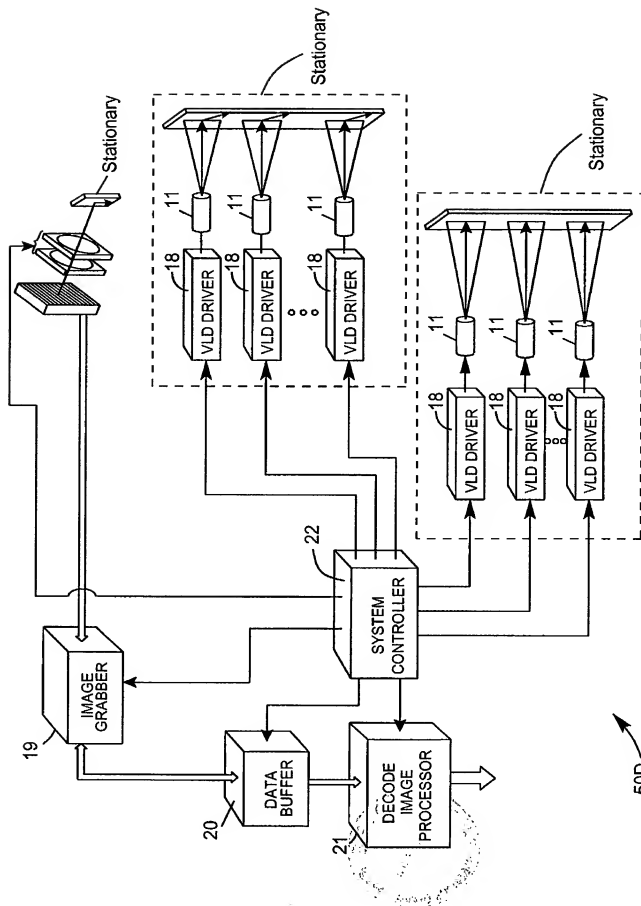


FIG. 3G2

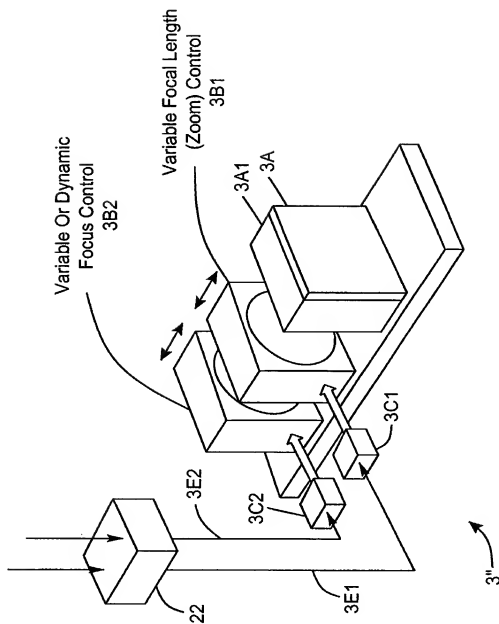


FIG. 3G3

- Variable Focal Length Imaging Lens
- Variable Focal Distance

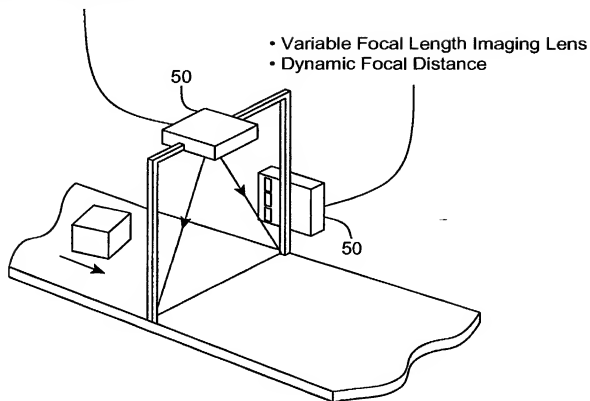


FIG. 3H

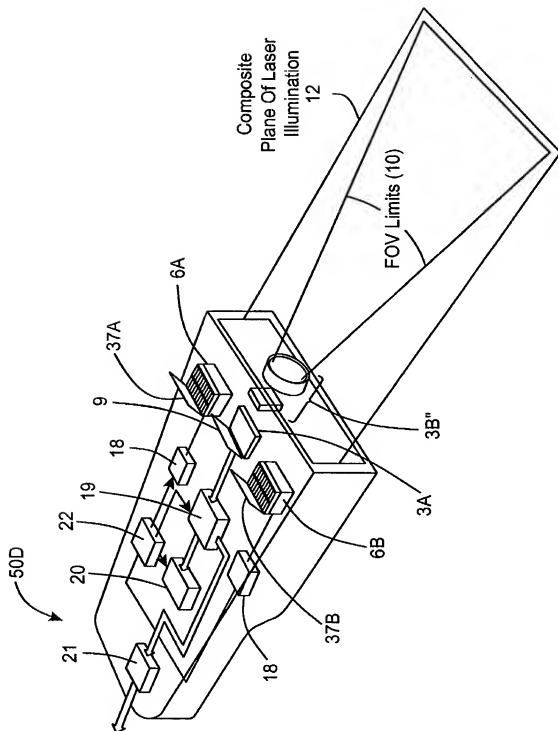


FIG. 3I

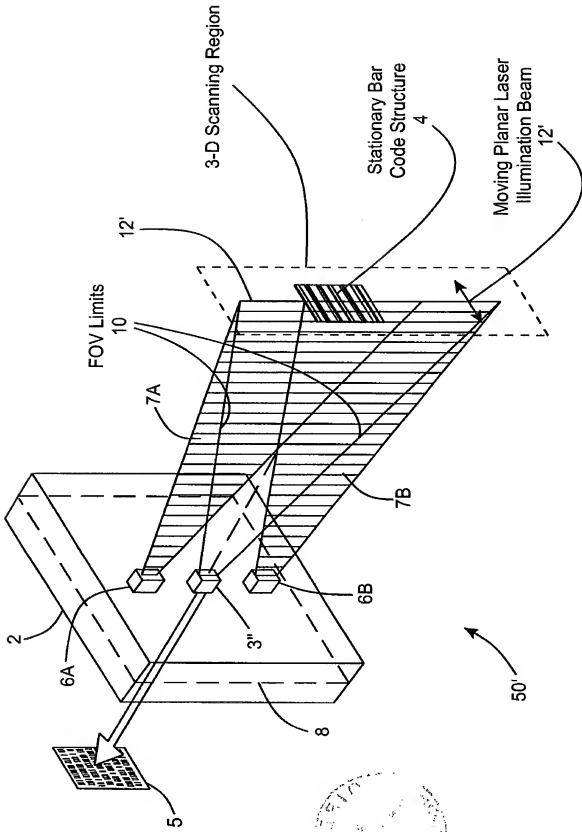
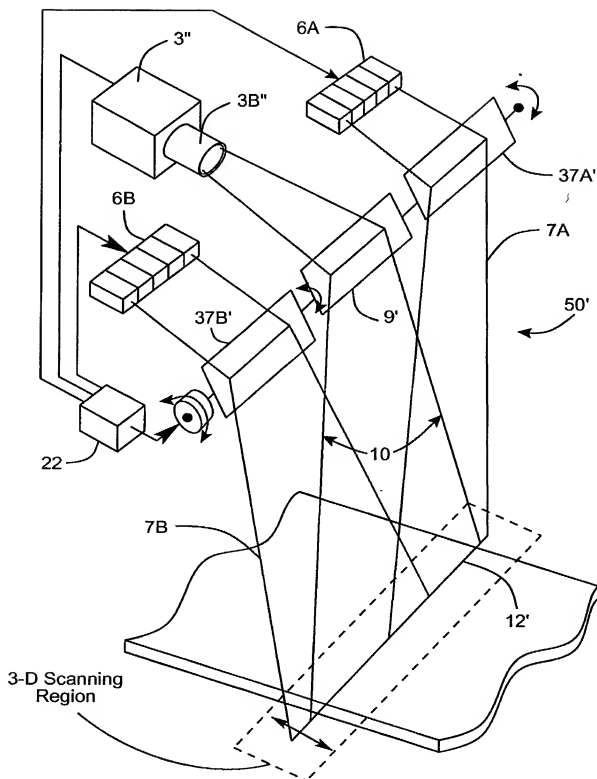


FIG. 3J1



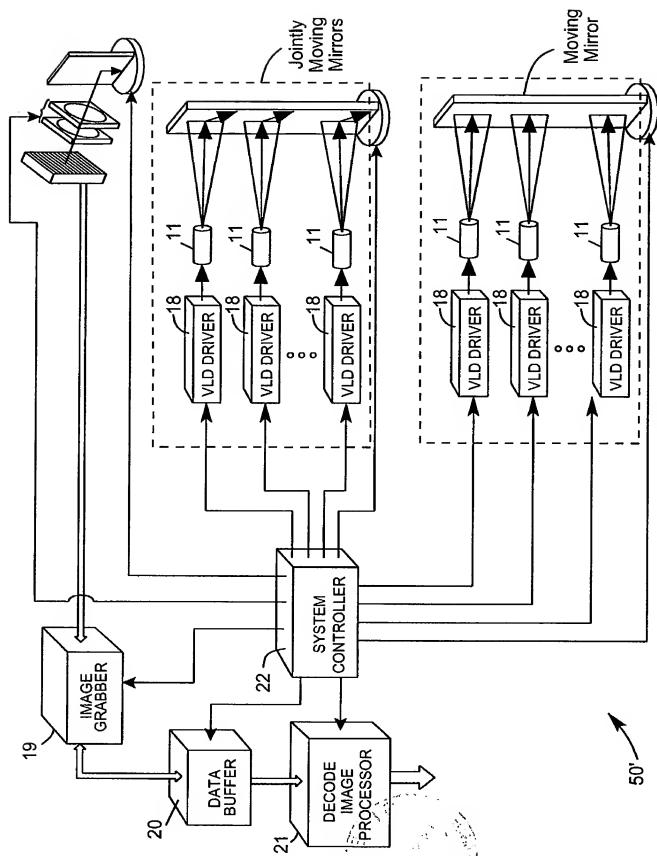


FIG. 3J3

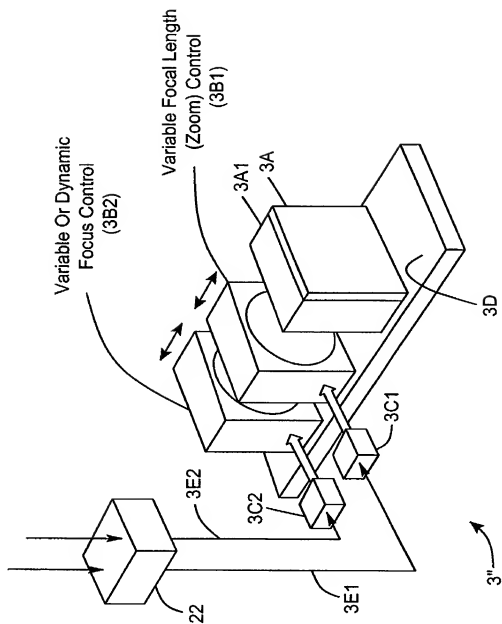
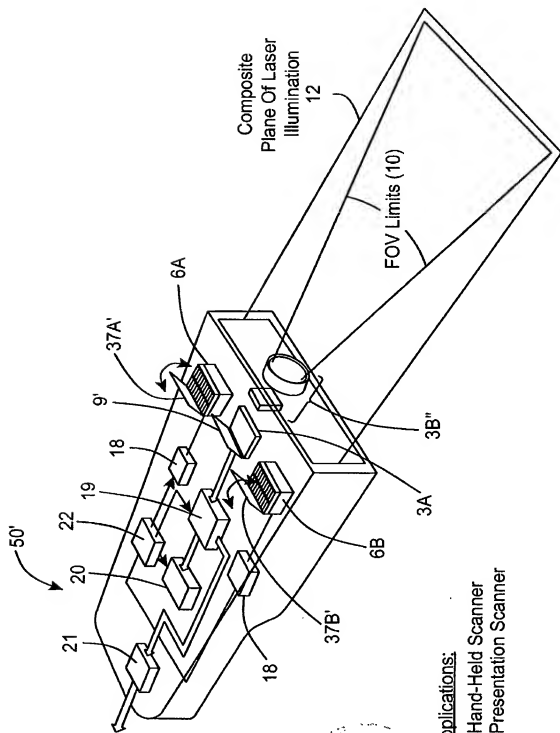
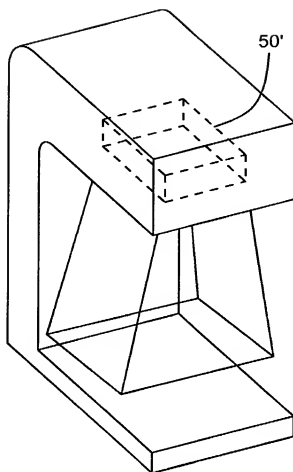


FIG. 3J4



Applications:

- Hand-Held Scanner
- Presentation Scanner



2-D Hold-under Scanner

FIG. 3J6



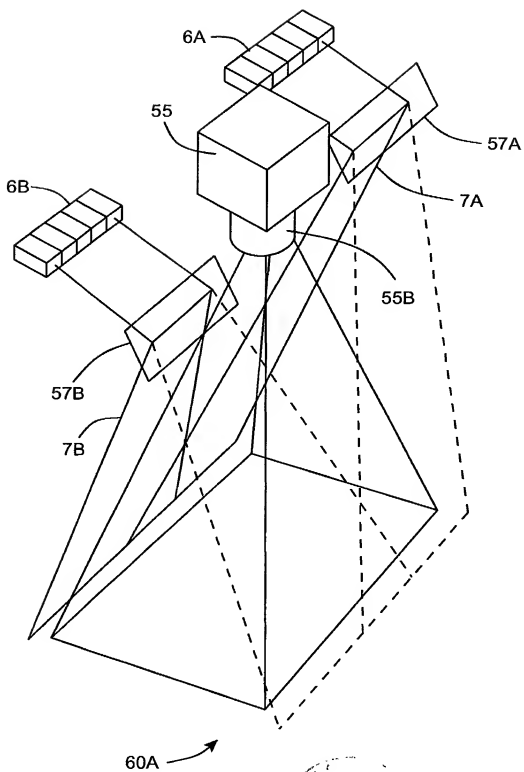
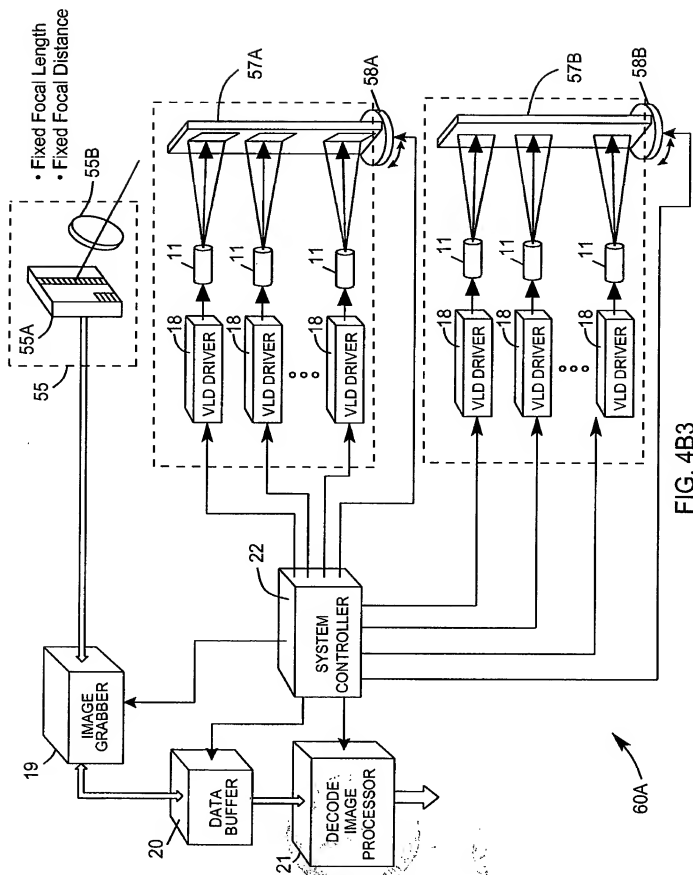


FIG. 4B1



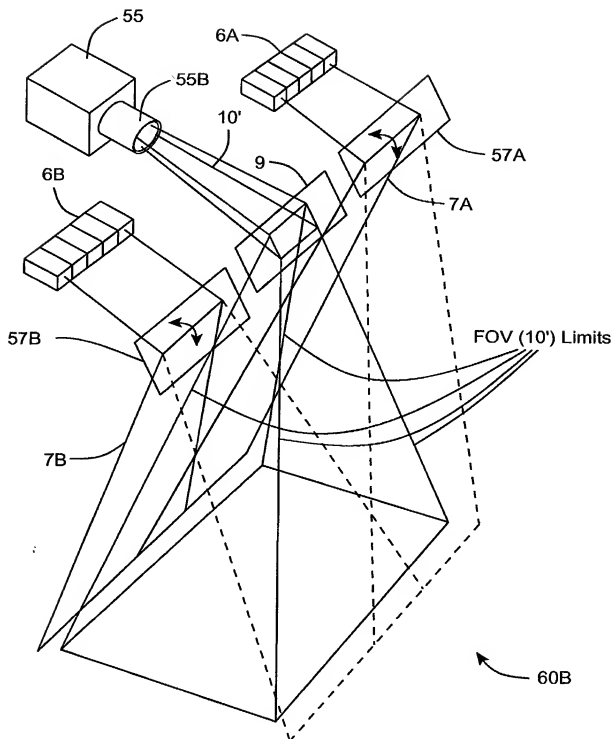
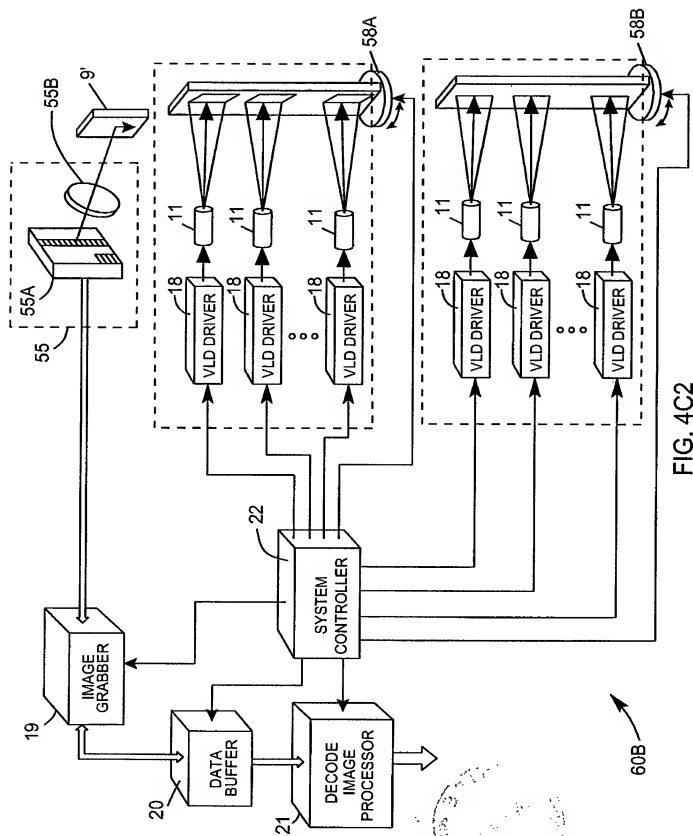
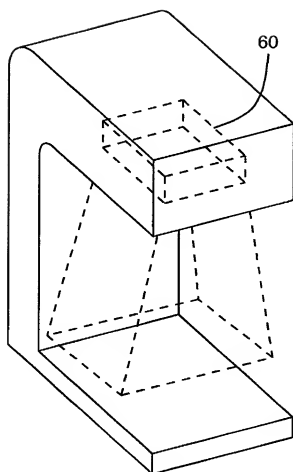


FIG. 4C1

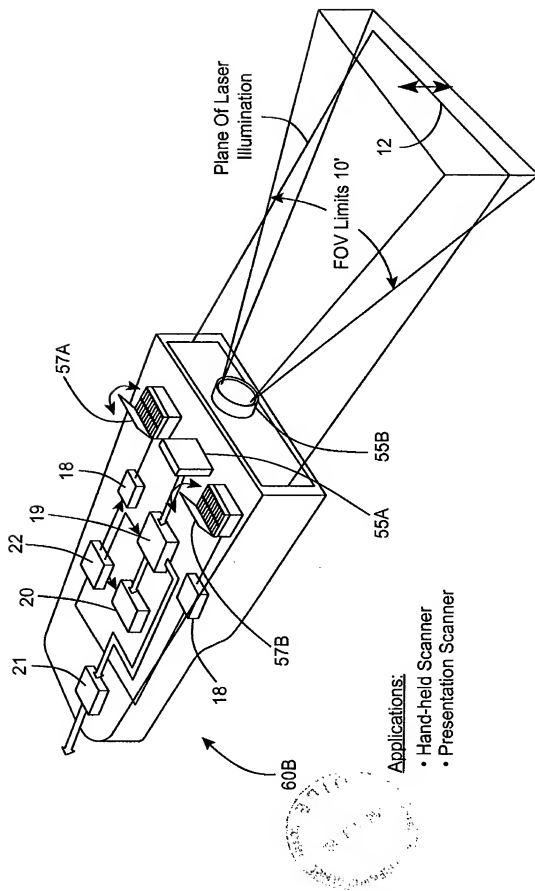




2-D Hold-under Scanner

FIG. 4D





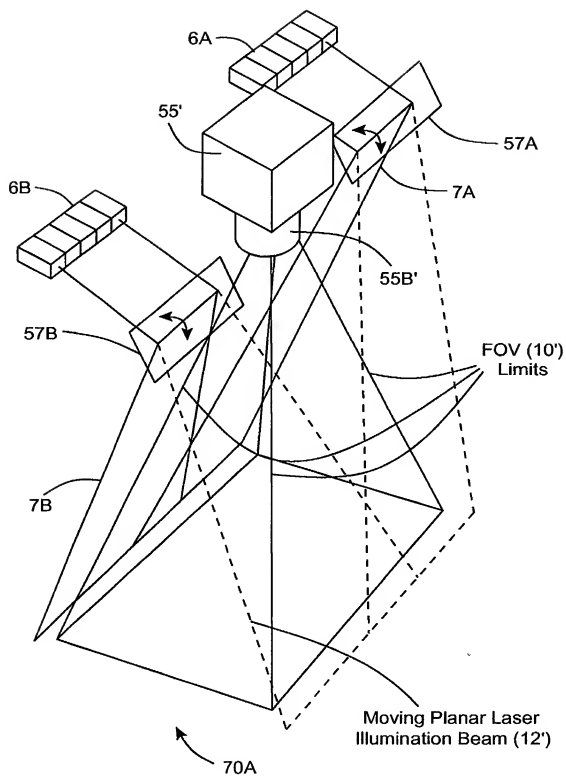


FIG. 5B1

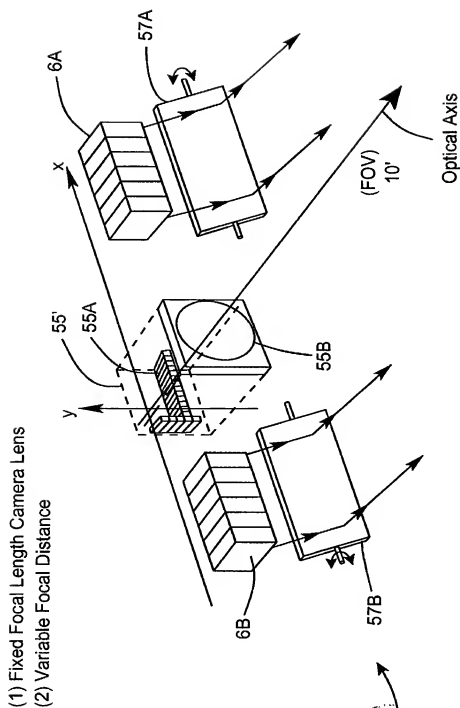


FIG. 5B2

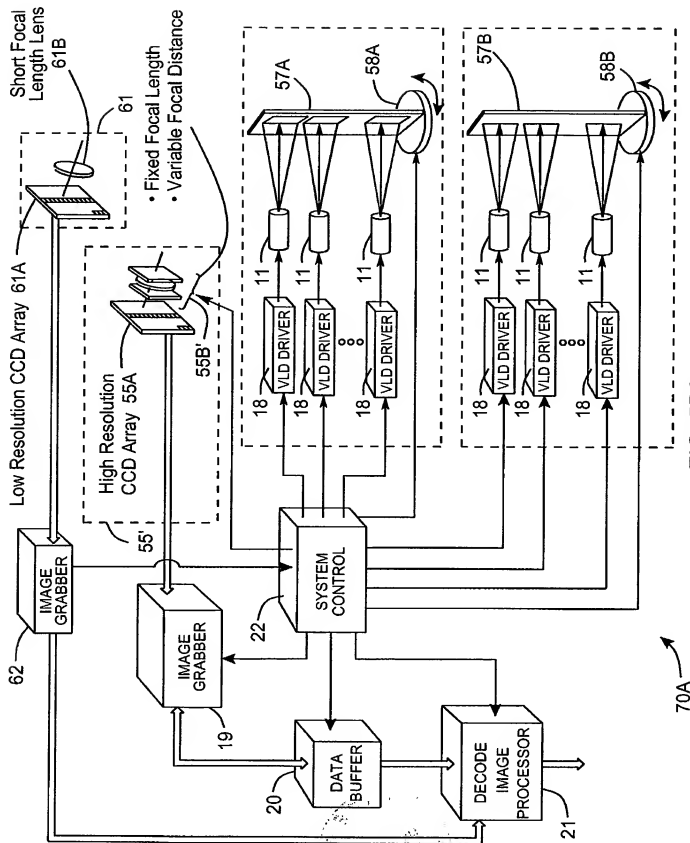


FIG. 5B3

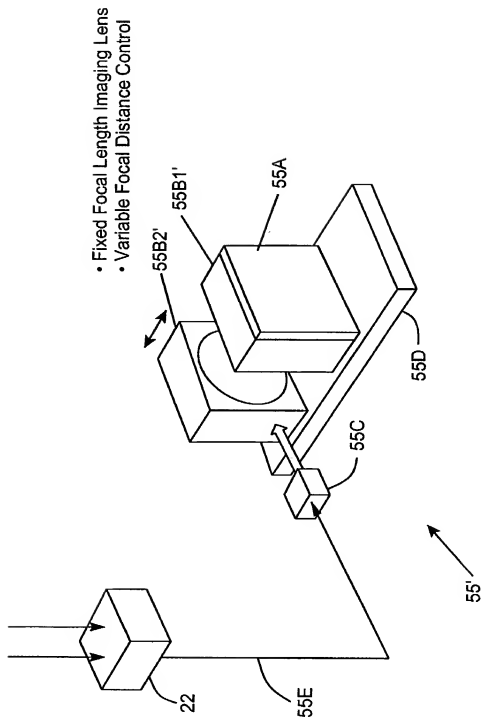


FIG. 5B4

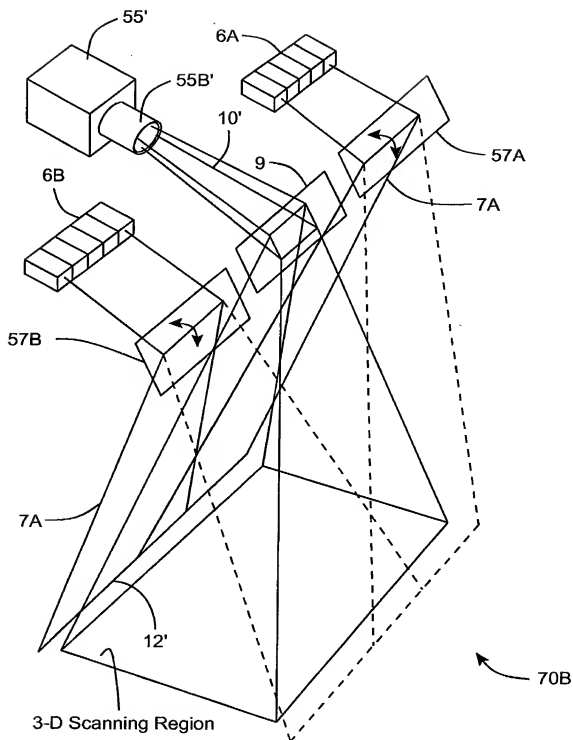


FIG. 5C1

- (1) Variable Focal Length Camera Lens
(2) Fixed Focal Distance

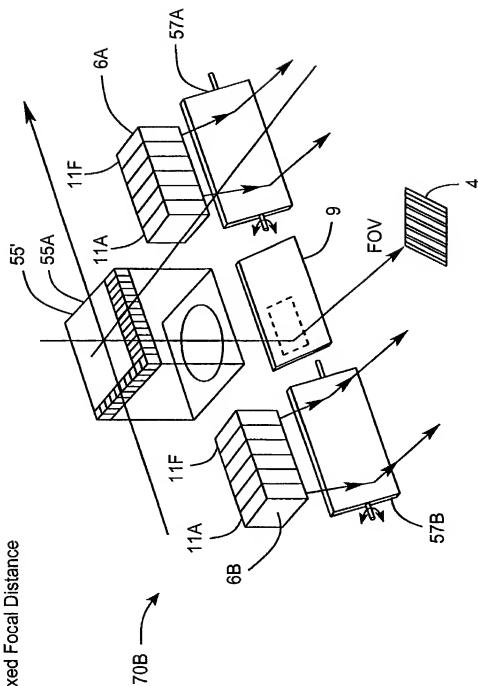
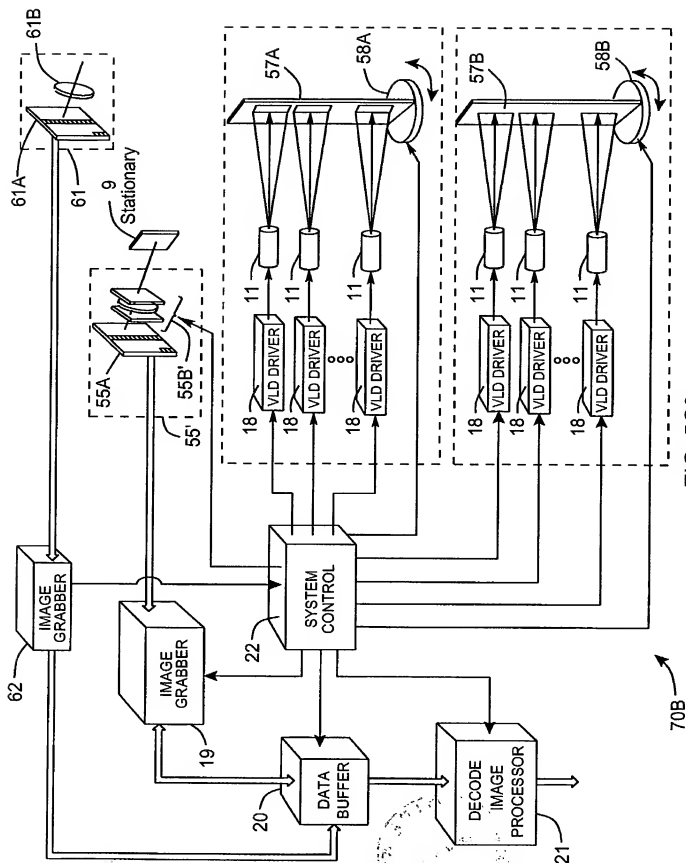


FIG. 5C2



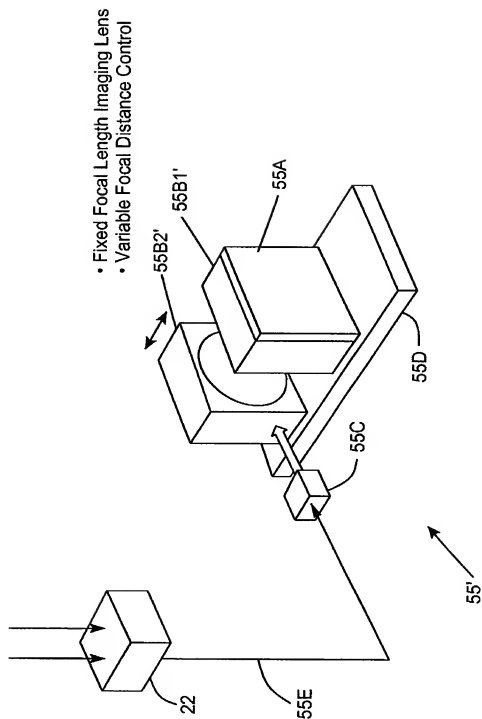


FIG. 5C4

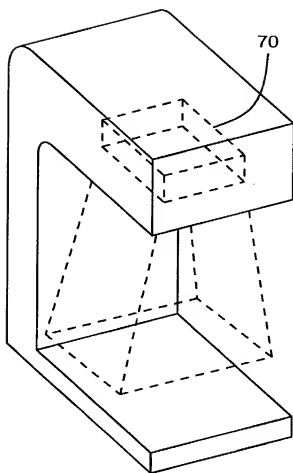


FIG. 5D



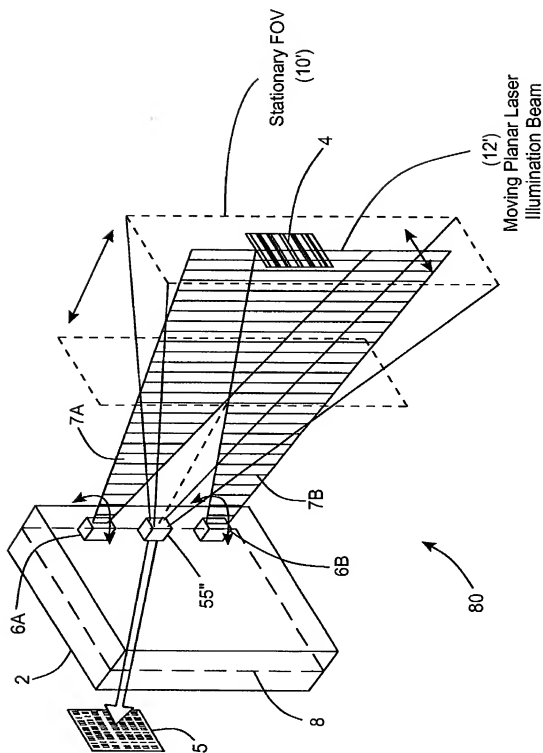


FIG. 6A

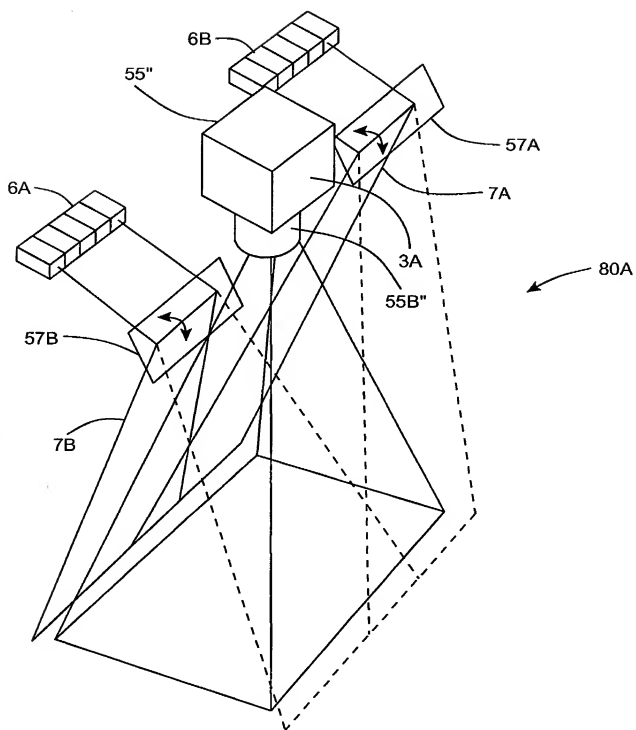


FIG. 6B1

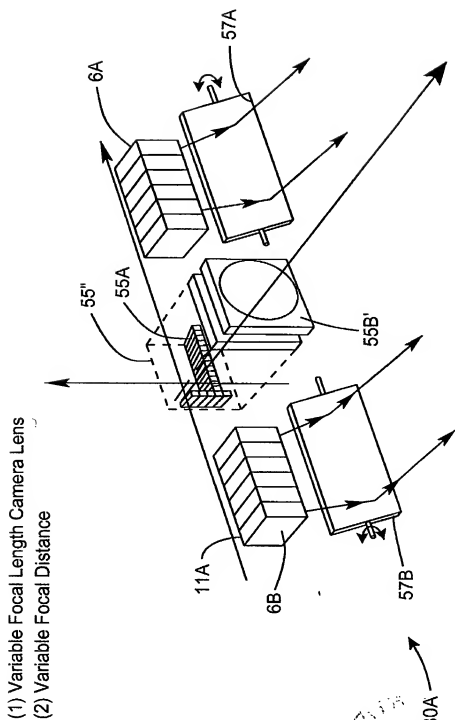


FIG. 6B2

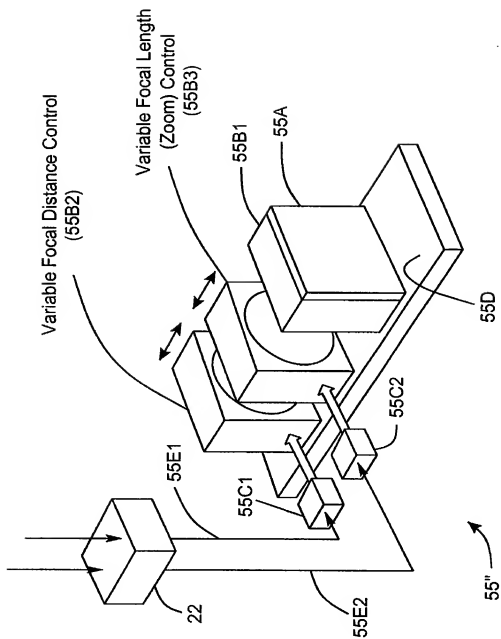


FIG. 6B4

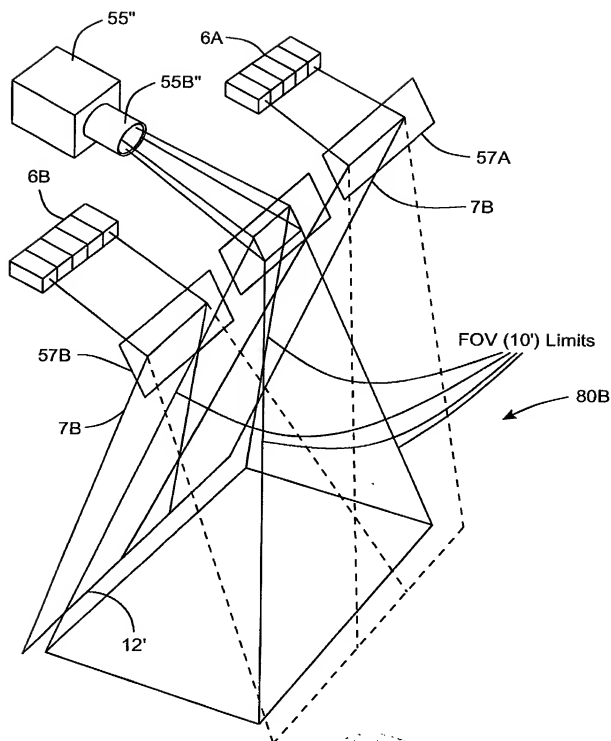


FIG. 6C1

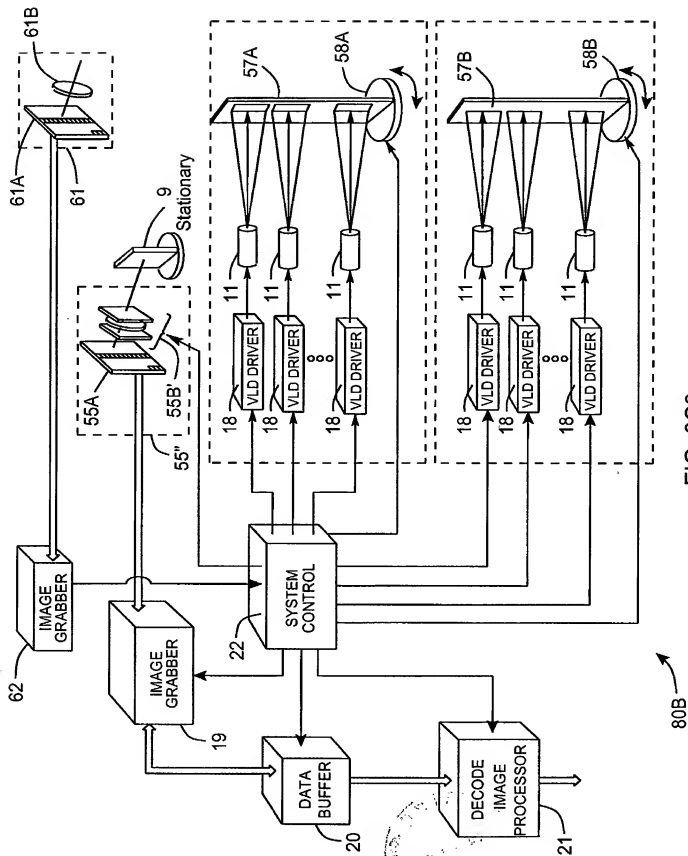


FIG. 6C3

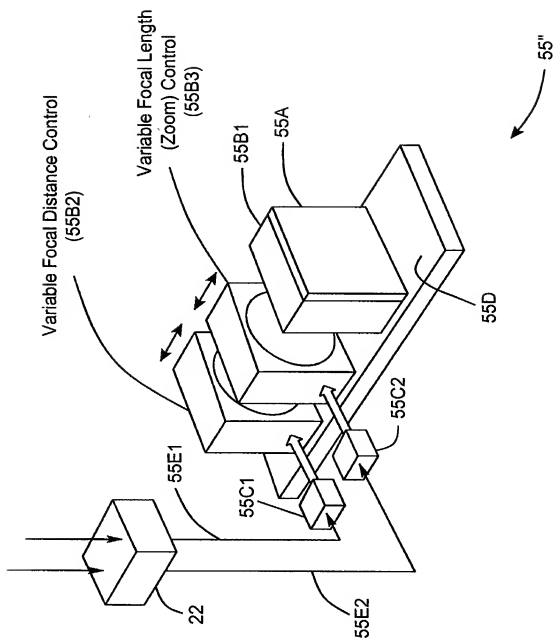


FIG. 6C4

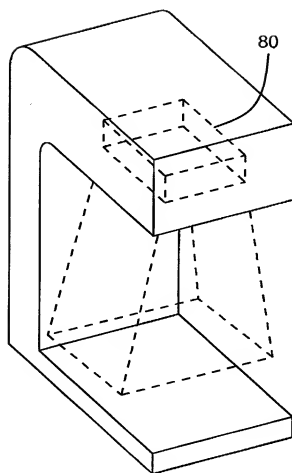
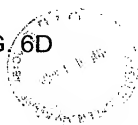


FIG. 6D



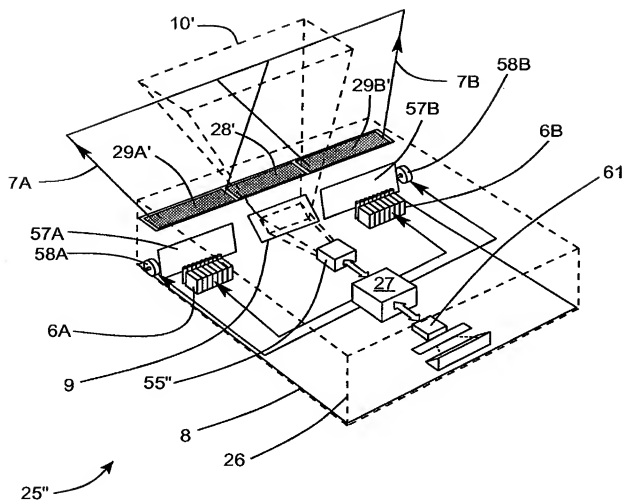


FIG. 6D1

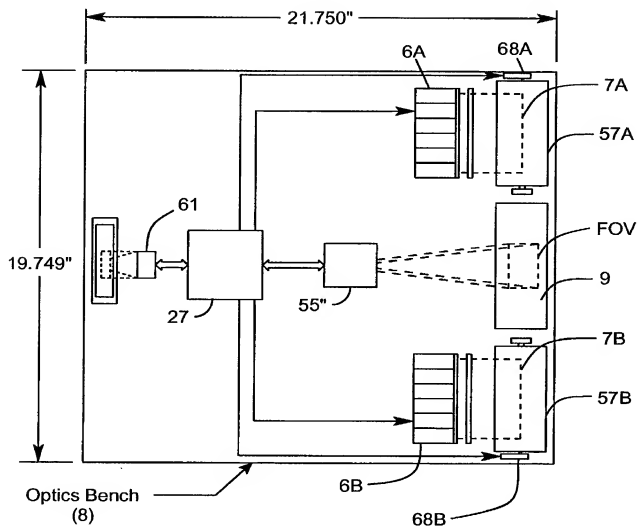


FIG. 6D2

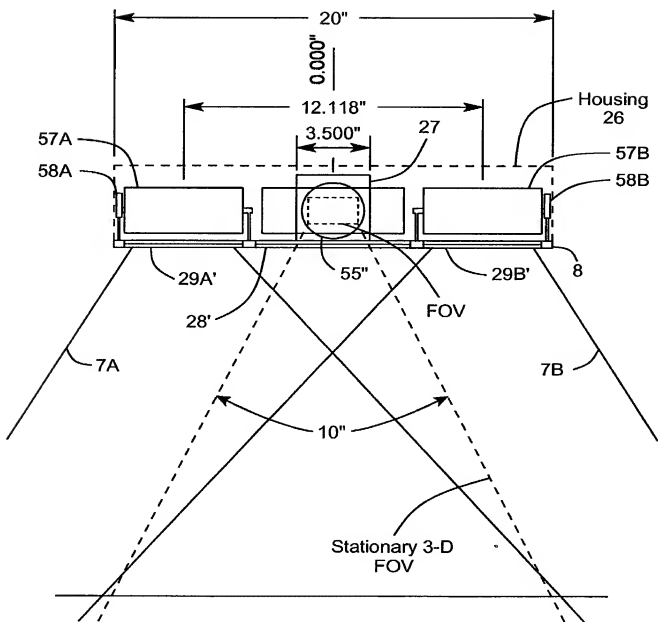


FIG. 6D3



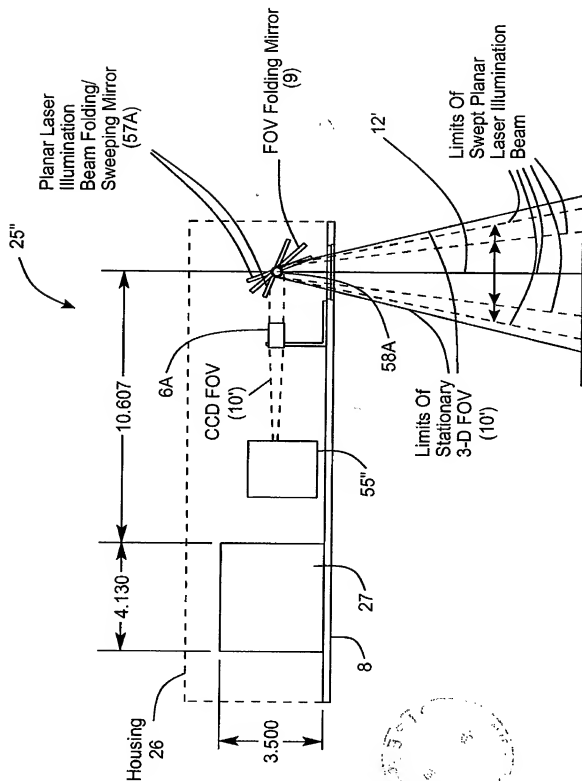


FIG. 6D4

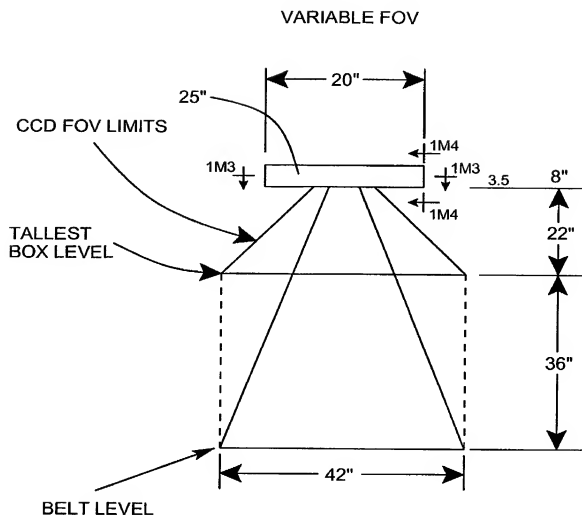


FIG. 6D5

- (1) Variable Focal Length Camera Lens
- (2) Variable Focal Distance

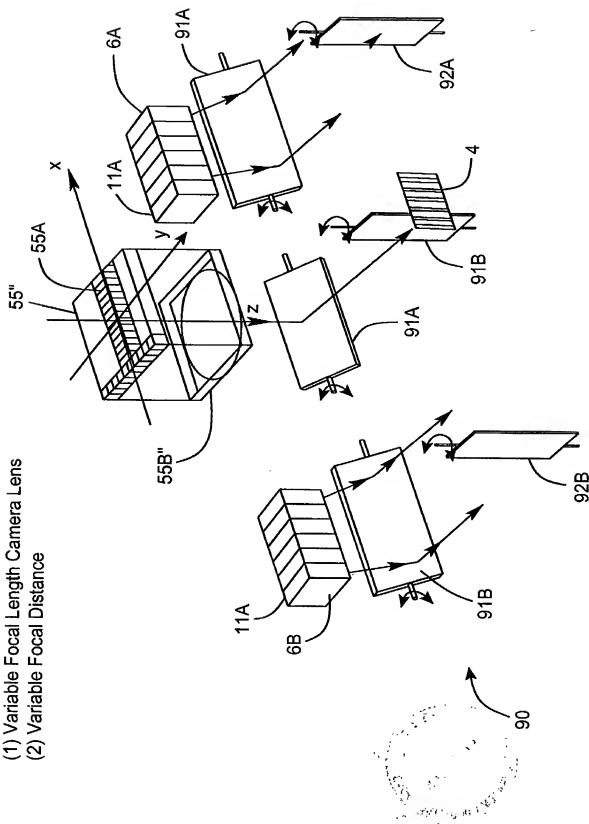


FIG. 6E2

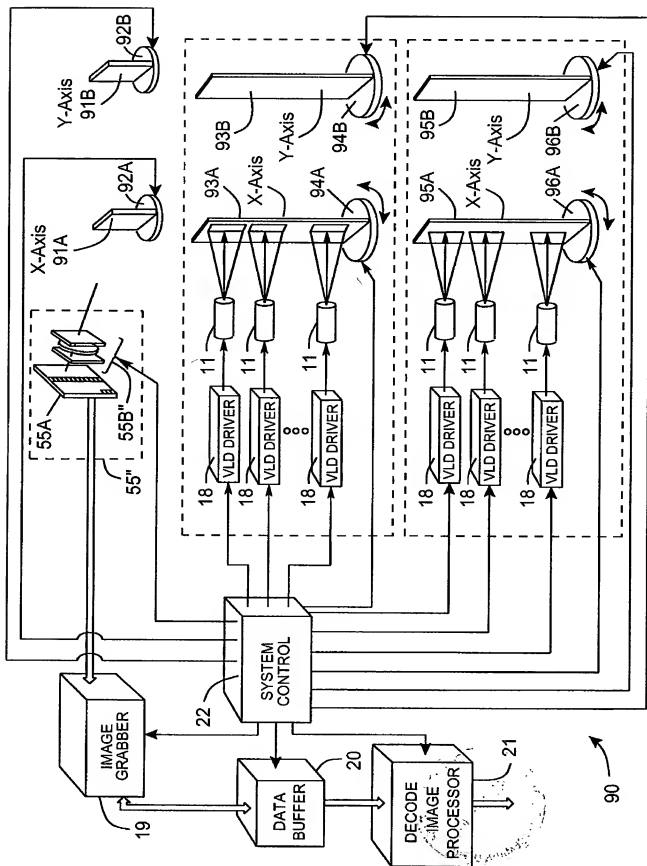


FIG. 6E3

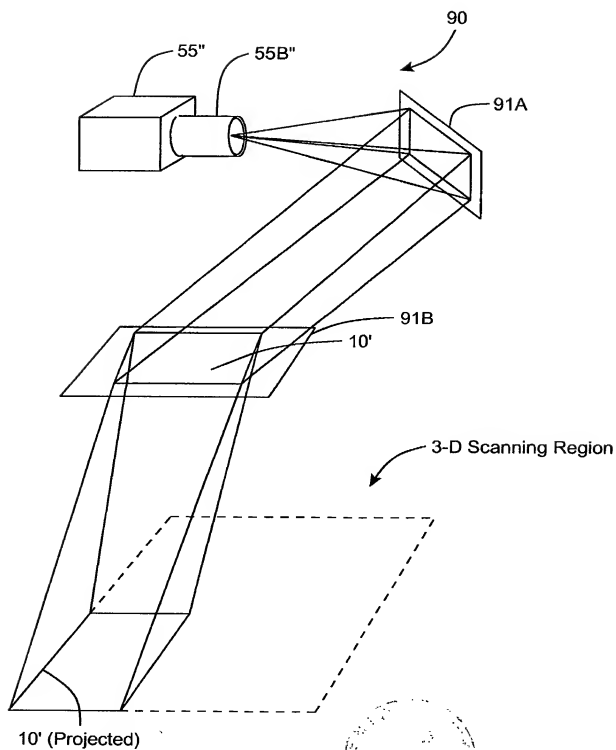


FIG. 6E4

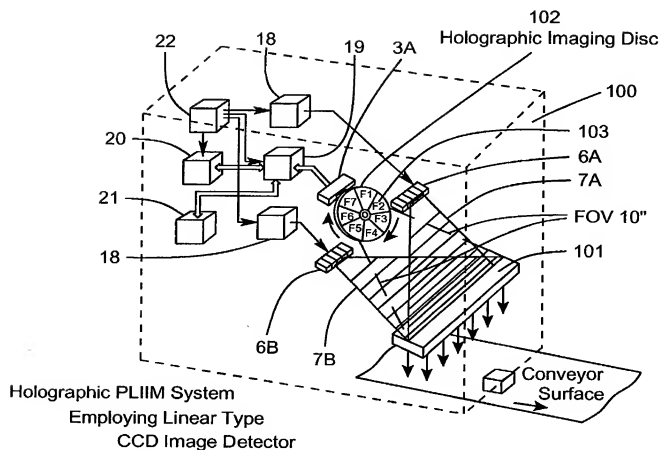


FIG. 7A

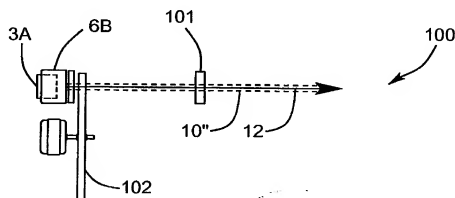


FIG. 7B

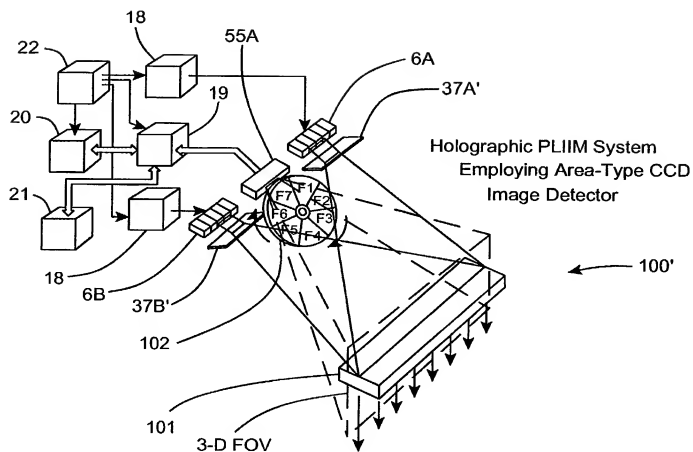


FIG. 8A

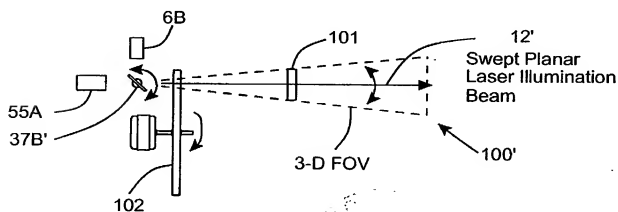


FIG. 8B

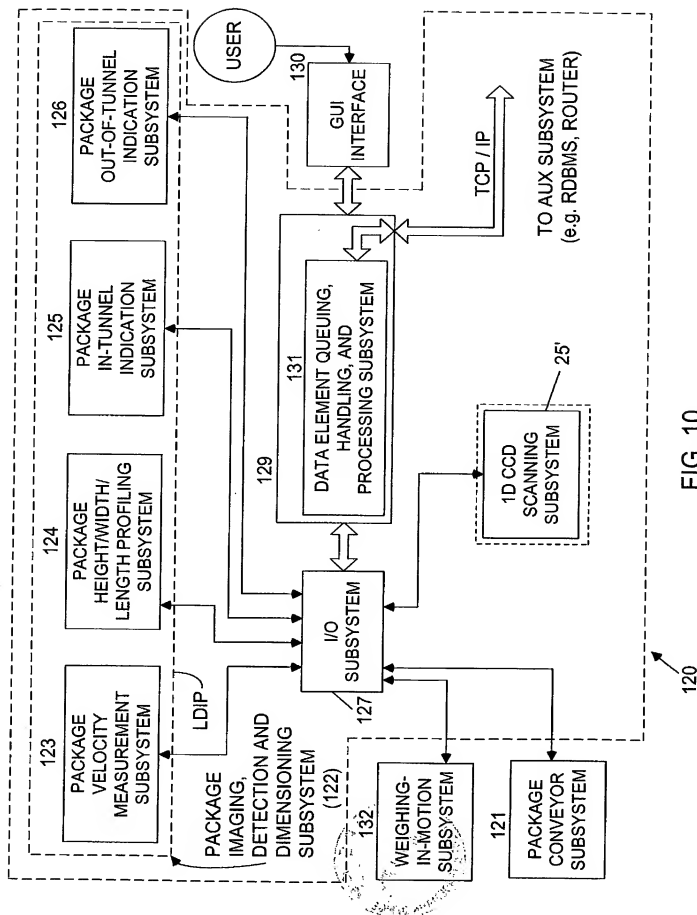


FIG. 10

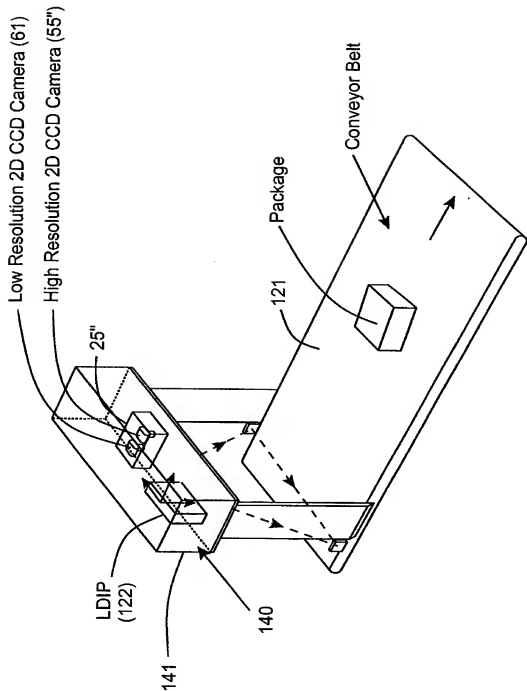
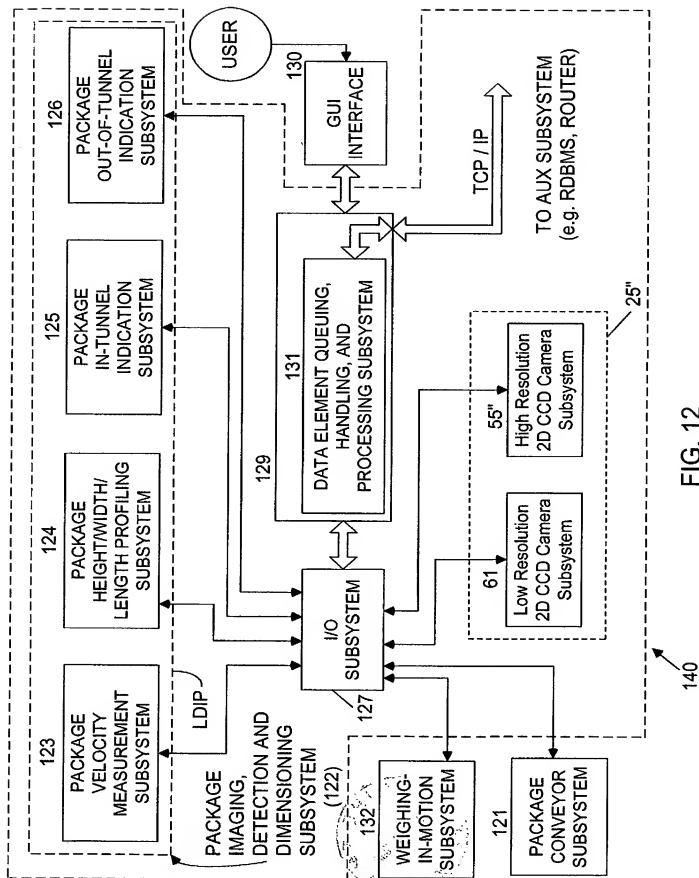


FIG. 11





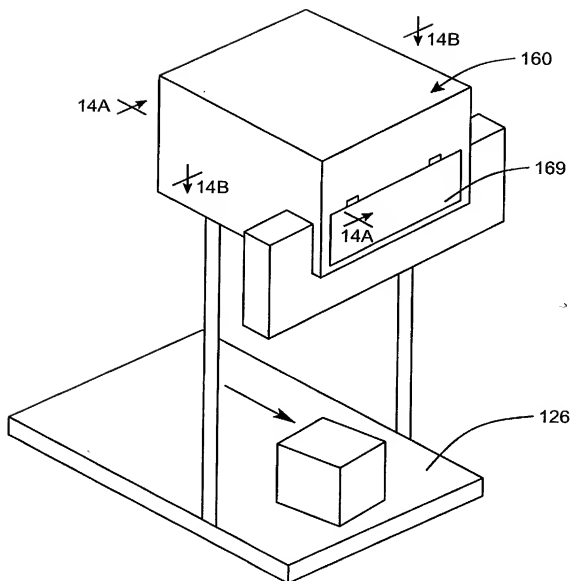


FIG. 13

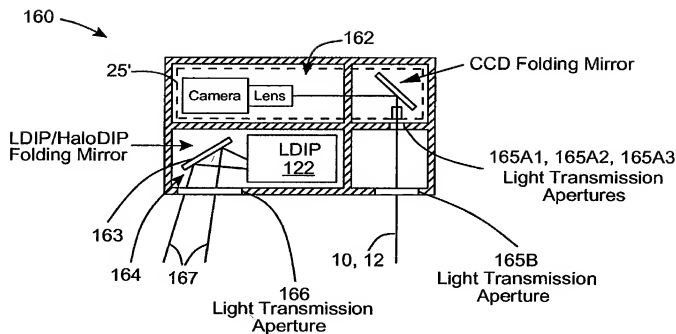


FIG. 14A

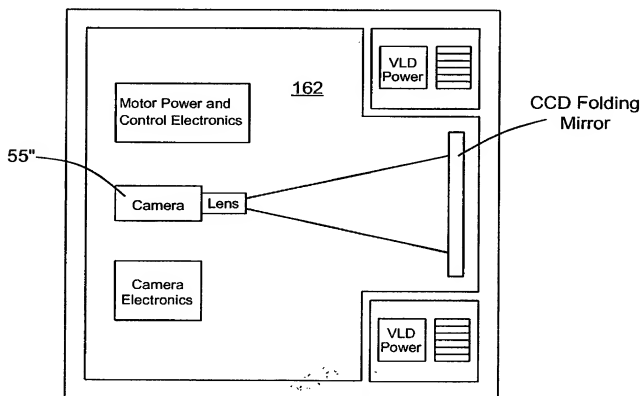


FIG. 14B

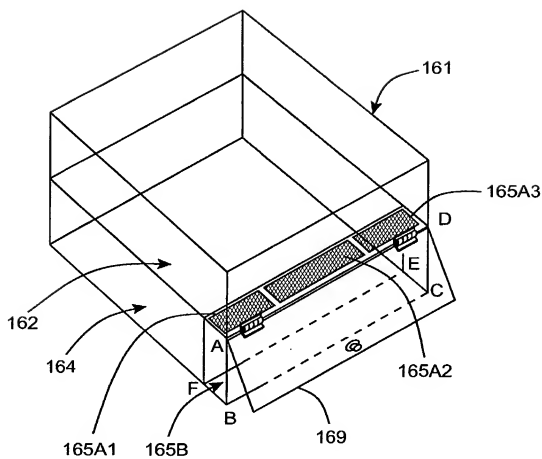


FIG. 15

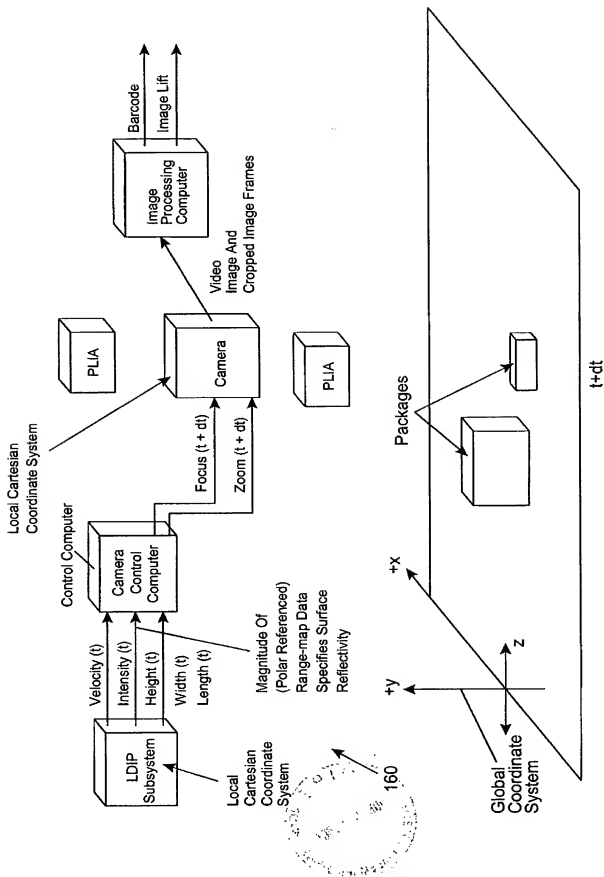


FIG. 16